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ABSTRACT

It was the purpose of this study to examine and evaluate the feasibility of involving cable television systems in central Appalachia with efforts toward rural community development. A variety of research procedures were employed, including a questionnaire on community needs, a telephone survey of cable facilities, a mail survey of programming sources, and on-site visitations with both community development and cable television personnel. The most salient conclusions of the study are that (1) Local origination of public service program via cable is technically and economically feasible and does serve the interest of community development; (2) Emphasis in such local programming should be primarily on local events and activities; (3) Community Involvement is a necessary element of cable television usage for community development; (4) Citizen's communications councils should be formed to oversee local programming; and (5) The use of low-cost, one-half inch videotape equipment is feasible for cable casting. To pursue further research and demonstration of the public usages of cable television in Appalachia, a multi-state, multi-purpose cable television development center is recommended. (Author)

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A Feasibility Study of Cable Television Utilization for Community Development in Central Appalachia

BY

LAMAR VINCENT MARCHESE

A THESIS PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

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PREFACE

Under a grant from the Appalachian Regional Commission, an independent federal agency charged with the task of Appalachian development, I began studying in April, 1971, the feasibility of using cable television as a developmental tool within the Appalachian counties of Kentucky, Tennessee, and Virginia.

I soon found that cable television literally began in Appalachia, and deserves due credit for providing conventional television to an area where it was largely non-existent. The carriage of more and better broadcast signals is the backbone of cable television's success, and surely the basis of its growth; but if this were all it could promise, this study would never have begun and the national excitement concerning cable communications would never have been generated.

As Chairman Burch of the FCC has warned, "If cable is to be nothing more than status quo television plus an overlay of improved technology--it would not be worth the time and energy being expended on it. And the public would be the loser."

It is my hope that the people of Appalachia, and indeed all Americans, will be winners, as the services of this important new technology expands beyond retransmission of broadcast television to a

variety of new public benefits. It was my task to study the cable television system within central Appalachia as it now exists and recommend to the Appalachian Regional Commission a plan of action aimed toward making cable television a more meaningful partner in the development of the Region.

Although my research is now completed and my findings now reported, the task is far from over; for the next several years are destined to be formative ones for the future of cable communications.

I am convinced that exploration of cable's community applications must begin now, while the industry is still young and pliable. Action must begin now to redress the whole family of urgent problems within Appalachia that can be considered, either wholly or partially, as problems of communications.

If cable will develop into a medium which is responsive to community problems is yet unknown. As the Sloan Commission has stated, however, "Choice is still possible in regard to cable television. Citizens may still take a hand in shaping cable television's growth and institutions in a fashion that will bend it to society's will and society's best intentions."

There is, in short, still time. Time for innovation and exploration of alternatives. Time to be used in employing cable television for the improvement of the Appalachian region, and most importantly, time to help shape a technology that, in time, will shape us.

Lamar Marchese
Morehead, Kentucky

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Abstract of Thesis Presented to the Graduate Council
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A FEASIBILITY STUDY OF CABLE TELEVISION UTILIZATION
FOR COMMUNITY DEVELOPMENT IN CENTRAL APPALACHIA

By
Lamar Vincent Marchese

June, 1972

Committee Chairman: Dr. Arthur Jacobs
Co-Chairman: Dr. William Purkey
Major Department: Journalism and Communications

It was the purpose of this study to examine and evaluate the feasibility of involving cable television systems in central Appalachia with efforts toward rural community development.

A variety of research procedures were employed, including a questionnaire on community needs, a telephone survey of cable facilities, a mail survey of programming sources, and on-site visitations with both community development and cable television personnel.

The most salient conclusions of the study are that (1) local origination of public service programs via cable is technically and economically feasible and does serve the interest of community development, (2) emphasis in such local programming should be primarily on local events and activities, (3) community involvement is a necessary element of cable television usage for community development, (4) citizen's communications councils should be formed to oversee local programming, and (5) the use of low-cost, one-half inch videotape equipment is feasible for cable casting.

To pursue further research and demonstration of the public usages of cable television in Appalachia, a multi-state, multi-purpose cable television development center is recommended.

I. INTRODUCTION

In the twenty-five years since its inception, television has become a dominant feature of the American landscape. Antennas dot our rooftops like so many radar scoops, functioning as the nuclear family's DEW-line for incoming information. Down below, millions of people spend millions of hours plugged into their sets, dependent upon them as their primary source of information about an increasingly threatening and complex world.

Television has become our living room jester, at times amusing us, but always performing to make us more comfortable with our lives. More importantly perhaps, television has become our electronic "Oracle of Delphi", everyman's guide when social, political, and economic decisions must be made. Television has shrunk the world into a "global village", where the effects of war in VietNam or famine in India are felt almost instantly, everywhere. Television has even given us glimpses of another world, in lifeless color.

All this is not without it's price, however, for what we have gained by the immense power of the existing television system, we have forfeited in its numbing shallowness. Like the Wizard of Oz hiding his weakness behind spectacular special effects, broadcast television has

depended upon its tremendous power to shield its almost trivial depth. As the Sloan Commission on Cable Communications has observed, broadcast television,

> ...has dealt primarily with entertainment at a low level of sophistication and quality and with news and public affairs at their broadest and most general. It has been obliged to think of the mass audience almost to the exclusion of any other, and in doing so has robbed what it provides of any of the highly desirable elements of particularity.[1]

These and other deficiencies of broadcast television have caused an increasing dissatisfaction with the present configuration of our communications system. Although the volume of information disseminated every day by conventional television is staggering, a closer look reveals great gaps in that information and vast minorities whose voices are seldom heard. A more critical look at the television audience also reveals,

> ...a growing indigestion resulting from the constant ingurgitation of pre-selected information. There is growing frustration with always being on the receiving end, with never being able to respond.
>
> The need to participate in an exchange of information and ideas with the various groups that make up the fabric of our society grows more pressing every day. The silent poor and the silent majority are all suffering from the need to participate in the decisions that affect their lives.[2]

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[1]Sloan Commission on Cable Communications, On the Cable: The Television of Abundance (New York: McGraw-Hill Publishing Co., 1971), p. 167.

[2]Dorothy Todd Henaut, "The Media - Powerful Catalyst for Community Change," Educational Technology, July, 1971, p. 27.

This growing need to "talk back to your television set", is not a need that broadcast television can fulfill. Its technology is inherently one way. It has no real capacity for feedback.

> So on the one hand, we're given information to respond to; on the other, there are no sanctioned channels of response....It may be that unless we re-design our television structure our own capacity to survive as a species may be diminished. For if the character of our culture is defined by its dominant communications medium, and that medium is an overly centralized, low-variety system then we will succumb to those biologically unviable characteristics. Fortunately techno-evolution has spawned new video modes like portable video-tape, cable television, and video-cassettes which promise to restore a media-ecological balance to TV.[3]

Conventional television plods onward like the Standard dinosaur, a gigantic homogenizing force. Scampering beneath its feet, however, are the latest technological advances, better suited for survival in future America. This evolution of media is one that Alvin Toffler has foreseen in his book, Future Shock. He observed that:

> ...when technical breakthroughs alter the economics of television by providing more channels and lowering costs of production, we can anticipate that that medium, too, will begin to fragment its output and cater to, rather than counter, the increasing diversity of the consuming public.[4]

Enter Cable

The marriage of low cost one-half inch videotape with cable television offers a practical response to our present communications,

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[3]Michael Shamberg and Raindance Corporation, Guerilla Television (New York: Holt, Rinehart, and Winston, 1971), p. 9.

[4]Alvin Toffler, Future Shock (New York: Bantam Books, 1971), p. 281.

"economy of scarcity." There are simply not enough television stations and enough available air time to satisfy either the demand for viewing or the demand for access.

Cable television, with its multi-channel capability, provides in the words of the Federal Communications Commission, "...the technological and economic potential of an economy of abundance."[5] Unlike broadcast television, it is possible now for a single cable system to program from 12 to 20 channels. Engineers talk of 80 to 100 channel systems, while in Akron, Ohio a system is nearing completion capable of providing 64 channels of television.

With multiple channel space available, the flexibility to "narrowcast" becomes feasible. As opposed to broadcasting, narrowcasting will aim specific messages at a variety of minority audiences simultaneously, thereby leading to a diverse and abundant television communications system.

There is something more than abundance that makes cable television a viable alternative to broadcast television. As the Sloan Commission has said:

> The configuration of a cable system, ...is that of a tree: the signal travels up the trunk and out through the branches. And like a tree, a cable system has a maximum size, beyond which the laws of physics and the law of economics make further growth impossible or impractical.[6]

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[5] U.S. Federal Communications Commission, "Cable Television Service; Cable Television Relay Service," Federal Register, Vol. 37, No. 30, Part II, February 12, 1972, p. 3262.

[6] Sloan Commission on Cable Communications, On the Cable: The Television of Abundance (New York: McGraw-Hill Publishing Co., 1971), p. 98.

Although it is possible to link together cable systems, by any of a variety of means, the fundamental unit in cable television is the individual system. Whatever other possibilities it has, it is able, as conventional television is not, to serve its own community and that community alone.

Hand in hand with cable's technical capability to provide multiple channels and its uniquely local configuration, is the ability of cable to transmit directly through the coaxial cable, in other words, to originate programming. Ralph Lee Smith, author of "The Wired Nation", has noted that this ability to cablecast "...eliminates the high cost of building and running over-the-air transmitters."[7] In addition, while commercial broadcasters derive their income from selling air-time to advertisers, the economics of cable television are different. Cable receives its major revenues from subscribers fees, although advertising may be sold.

Together then, the reduced cost of programming, plus the expanded revenue base of cable television are elements of a coming television system, that according to Mr. Smith, will be "...far more flexible, far more democratic, far more diversified in content, and far more responsive to the full range of pressing needs in today's cities, neighborhoods, towns and communities."[8]

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[7]Ralph Lee Smith, "The Wired Nation," The Nation, May, 1970, p. 584.

[8]Ibid.

Abundant channel capacity and precise coverage, in concert with low production costs for local programming make cable television the logical medium for a new kind of community television. In short, the technological make-up of cable ordains that it be primarily a local medium; a medium that may, and should, be used to serve specific community needs.

Jim Templeton, former Director of Rural Affairs for the Office of Economic Opportunity, understood well the community development potential of cable television when he spoke to a group of cable operators three years ago. He urged them to use the cable to "...reflect the community to itself /italics mine/..."[9] and thereby to become a genuine force in the community. He reminded them that cable television can draw upon all the resources of the community to mirror local culture, and in so doing sometime change the course of local history.

Cable television is not without its faults and shortcomings. There are still far-reaching policy decisions not yet formulated, complicated regulatory questions left unanswered and other important issues still unresolved. The conduit is, however, already laid in much of Appalachia through which could flow information that might have enormous impact on many of the region's most immediate needs.

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[9]James D. Templeton, Unpublished Speech to the Cablecasting Seminar of the National Cable Television Association, Salt Lake City, Utah, April 8, 1969, p. 10.

It seems a shame that this impressive new instrument of communications that has such tremendous potential for serving a variety of public needs, is the same instrument that today does little more than recycle images of "Daniel Boone" to the region that spawned him, and pipe a fuzzy landscape of barometers and thermometers to Appalachia as a constant reminder of opportunity untaken.

II. STATEMENT OF THE PROBLEM

The ills that plague Appalachia have been too well publicized to merit their full repetition here. It will suffice to say that the region has a long history of isolation, poverty, and exploitation by outsiders. Many of the region's problems, however, may be looked upon, in part or in whole, as problems of communications. Among these might be counted problems in the delivery of health services, problems of inadequate educational programs, and problems of unemployment.

Appalachia has, however, a new resource to help in redressing its problems, that is as yet virtually untapped. That resource is cable television; until recently the same instrument that did little more than link rural Appalachia with urban-based television broadcast stations.

Through local cablecasting of programs it would be possible to alert people of community problems in health, housing, and unemployment, to suggest ways of taking advantage of education, employment, and training opportunities, and to build community support for efforts to solve local and regional social problems. In other words, cable television has the potential to become a powerful tool for community development.

Between the promise of cable and its realization however, lies a plethora of legal, political, economic, organizational and technical problems of extraordinary complexity. Cable operators and community development workers must first be convinced that their interests are both served by cooperation, before they will combine their resources and begin active program. Funding agencies must also have data on the obstacles and potential of utilizing cable television for developmental activity in rural mountain towns.

The overall purpose of the study then, is to examine and evaluate the feasibility of involving cable television systems in central Appalachia in efforts toward community and regional development. The specific objectives of the study are to:

1) examine existing CATV facilities within the study area;

2) assess the potential of such facilities for use in public service programming which would be designed to facilitate regional development efforts;

3) recommend ways to make better use of existing facilities and services for public service purposes;

4) recommend additional facilities and services which should be provided to reach and meet the public service programming needs of the area through use of cable television.

Significance of the Study

A key element in the transition of the cable television industry was a ruling adopted by the Federal Communications Commission in October, 1969. In that ruling the FCC ordered, effective April 1, 1971,

that cable systems with more than 3,500 subscribers must originate their own programs.

Although a court case nullified this ruling before it was implemented, the ruling itself was proof positive of the FCC's recognition of cable's ability to solve the problem of local service. The Commission is seeking Supreme Court review of the lower court decision; meanwhile, of course, the rule will not take effect. But, as the Commission underscored: "...this suspension, of course, does not affect the right of CATV systems to cablecast upon a voluntary basis, or to make channels available to local citizens. ..."[1]

Even though the FCC's mandatory program origination ruling was struck down, it did, as Ned Feldman of the Rand Corporation said:

> ...raise many questions concerning how extensively this potential of local programming can, in fact, be realized either with or without federal regulation. Such factors as the cost of local programming, the requirements for talent and organization, and the appeal of such programming are of basic importance.[2]

There is indeed growing national interest in local program origination. This has been reflected in a number of studies, most of which have focused upon urban applications

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[1]Louis Schwartz and Robert A. Woods, "A Marriage Proposal: Cable Television and Local Public Power," Public Power, November-December, 1971, p. 28.

[2]N. E. Feldman, Cable Television: Opportunities and Problems in Local Program Origination (Santa Monica: Rand Corporation, 1970), p. v.

of cable technology. However, little has been done to date to relate the new services of cable to the small, rural market, not only with regard to Appalachia but to the country as a whole.

It is therefore my purpose to present a practical document that has application and usefulness for the many hundreds of rural communities throughout the country that are served by cable television, and for the many thousands of communities not yet served that will soon be facing many of the issues raised in this study.

III. METHODOLOGY

Introduction

The purpose of this chapter is to present the procedures followed in conducting the study. Major divisions of the study included, (1) a survey of cable television facilities, (2) a programming survey, and (3) an ascertainment of needs survey.

Study Area

Although cable television systems are operating in each of the thirteen Appalachian states, it was sufficient for the purposes of this study to confine the boundaries of research to the Appalachian counties of Kentucky, Tennessee, and Virginia.

The study area roughly corresponds to what is commonly known as central Appalachia, excluding the southern bank of counties from West Virginia. Within this area the concentration of poverty is among the highest in the entire region. These fifty-one counties in Kentucky, Virginia, and Tennessee are home for roughly 1.3 million people. Densely populated, yet widely dispersed, the population of the area is severely hampered by rugged terrain and little urbanization.

More than any other densely populated part of the United States, central Appalachia is isolated physically, socially and economically from the rest of the country.

Impediments to development of many communities in central Appalachia include: inadequate public and private capital, inadequate tax base for nearly all local governments to finance necessary community improvements, lack of urbanization, low level of public health practices and services, difficulty of transportation, and poor housing.

Development Districts

The basic local organization involved in planning and administering the Appalachian development program is the local development districts. It is the job of these multi-county, multi-purpose development districts to carry on a range of activities, such as technical assistance to local governments, coordination of state and federal assistance programs, and formulation of district development plans. The districts serve as vehicles for areawide cooperation and local cost-sharing, in order to bring quality services to rural jurisdictions with small populations.

It was the local development districts that provided the appropriate structure through which information could be gathered on cable television utilization for development. Within the general study area, six development districts, two from each of the three states, were selected for more intensive study.

Five of the development districts selected lie within the hardcore area of central Appalachia that was previously described. Four of the five selected districts are geographically contiguous. (See Figure No. 1)

The districts were selected for special study on the basis of their willingness to assist and advise this researcher and the existence of cable television operators within their respective districts who were interested in using their systems for community development and education purposes. (See Appendix A)

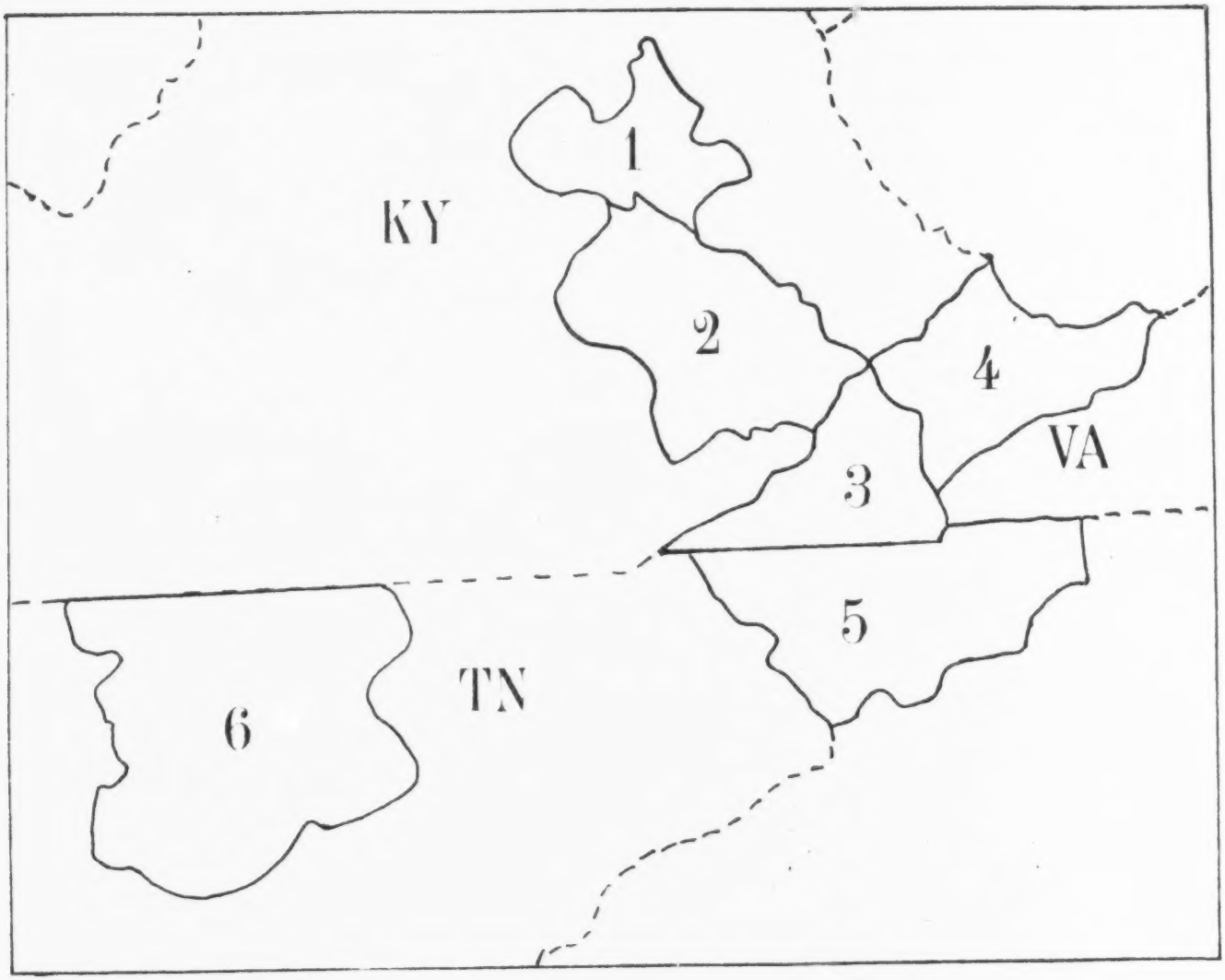
Facilities Survey

Study Area Survey

A survey was performed of cable television facilities within central Appalachia through research of existing documents. Three major secondary sources were consulted for this compilation, Broadcasting Sourcebook, CATV 1971, Television Factbook, 1969-70, and CATV Systems Directory, Map Service and Handbook, 1971.

Information in these publications comes from questionnaires circulated to all operating cable systems in the country, from the Federal Communications Commission, by phone from operators of various systems, from group owners, and from other industry sources, such as brokers, lawyers, and cable associations.

Since complete statistics were lacking on all operating systems within the study area a sample comprising 56 per cent of the total universe was taken. This survey broke down the study area by state and system



DEVELOPMENT DISTRICTS UNDER SPECIAL STUDY
Figure 1

and included information on numbers of subscribers, potential subscribers, percentage of saturation, and channel capacity. (See Appendix B)

Development District Telephone Survey

In order to gather up-to-date information on cable facilities within the six development districts under special investigation a telephone survey was performed. Of the forty-seven operating systems within the six development districts, responses were gathered from forty-three systems. Responses included the number of subscribers per system, channel capacity, excess channels, local origination activity, and production equipment utilization. (See Appendix C)

Programming Survey

In order to determine the extent of available programming which might be used to meet public service needs within the study area, a mail survey was taken of fifty commercial program suppliers and twenty-nine sources of possible educational programming. Replies were then categorized by the type of organization responding and the nature of the programming offered.

Ascertainment of Community Needs Survey

Introduction

Prerequisite to determination of programming needs is the ascertainment of community needs. Three methods were used to discover

these needs; a questionniare, review of FCC documents, and on-site visitations.

Questionnaire

A questionnaire was designed to determine community needs and distributed to cable television operators, community development personnel, and other related participants of conferences on cable television and community development that were held in Kentucky and Tennessee.

The questionnaire sought responses to a series of questions on community needs and programming needs. There were also sub-sections for development district personnel only and cable operators only. (See Appendix D)

FCC Document Review

In their license renewal applications, broadcasters, by FCC regulation, must indicate results of a community needs survey. This survey is taken within the station's service area by asking local citizens their opinions on community problems. These reports are then filed with the FCC and become public record.

For the purposes of this study, ascertainment of needs survey forms from radio and television stations located within the development districts in each of the three states that were under special scrutiny were gathered from the FCC. In this way access was gained to the

expressed needs in several different communities within the study area.

On Site Visitations

As a conference on community development and cable television in Virginia was not possible, a personal visit was made to two development districts located in that state that were part of the development district sample.

Informal discussions on problems of the communities located within each of the respective development districts were held with officials of the LENOWISCO Planning District Commission, Dryden, Virginia and the First Tennessee-Virginia Development District, Johnson City, Tennessee.

IV. RESEARCH FINDINGS

Facilities Report

Cable television is pervasive throughout central Appalachia. As near as can be determined, there are 105 cable television systems operating within the area, serving 136 different communities. These systems range from those with less than 100 subscribers to a giant complex in the Kingsport, Tennessee-Johnson City, Tennessee-Bristol, Virginia (Tri-Cities) area with almost 34,000.

Cable came early to the mountains, especially in Kentucky, where several systems date back to the early 1950's. This early entry into the cable business, although prompted by need, has proved to be a mixed blessing. Good in that it brought television early to an isolated area that otherwise would have had no television service, bad in that the technical advancements of the industry has left many of the pioneers behind. Home-made and out of date equipment is still in service in many of the early systems, resulting in poorly served, and underserviced subscribers.

Most area systems are small, averaging about 1,300 subscribers per system. These small systems generally provide far less channel

capacity than the state of the art now permits and with few exceptions, each system is self-contained; independent and unlinked to any other. As is true nationally, cable systems within the study area are to be found primarily in small cities and towns, unserved or only partially served by conventional television. The two large cities, in the area, Knoxville and Chattanooga; and the two peripheral cities, Lexington and Roanoke are all, as of yet, without cable service.

Ownership

Almost every system, except those started in the last few years, began as a "mom and pop" operation; built by local individuals with modest intentions of providing a purely local service, often as an adjunct to an appliance store or TV repair shop.

In recent years, however, large companies have entered the field by either building new systems or buying existing ones to become, what is known as, Multiple System Operators, or simply MSO's. This newer pattern of ownership has not yet seriously penetrated Kentucky, where only seven of the fifty-six operating systems are owned by Multiple System Operators. Both Tennessee and Virginia, however, are heavily penetrated by multiple system owned cable stations. Of the twenty-five systems operating in eastern Tennessee, fourteen are owned by MSO's. The concentration is even greater in Virginia, with seventeen of the twenty-four operating systems owned by MSO's.

Multiple Systems Operators have, in the past, been somewhat more active in program origination than independents. The activity in the Tri-Cities area, for instance, has been aided by the active support of two large MSO's, Cypress Communications and National Trans-Video, with efforts of the First Tennessee-Virginia Development District to begin significant local programming via cable in Kingsport, Tennessee.

Penetration

The mountainous terrain of central Appalachia makes cable television almost essential if one is to receive adequate television service. Local businessmen in even the smallest mountain communities, have taken advantage of this fact by literally stringing cable on trees in some cases, and running minimal, but profitable, cable television systems out of the backs of their appliance stores.

The extreme isolation and small size of many cable systems within the area makes gathering overall statistics on penetration of cable television a very difficult task. Although required to report to the FCC about certain operational and ownership information, many small systems have simply not complied.

The National Cable Television Association estimates that between 65 per cent to 70 per cent of all homes receiving television signals in eastern Kentucky are tied into local cable systems. Statistics compiled from several CATV directories, plus extensive telephone interviews, tend to confirm such estimates. Complete statistics were

gathered on a sample of 59 of the 105 cable systems operating within the study area. (See Appendix B)

Central Appalachian cable systems maintain an average penetration of 55 per cent. This figure compares favorably with a national estimate that the average cable TV system has a 56 per cent saturation in its market. Of the three states, Kentucky has the highest level of market penetration with an average of 62.5 per cent. Cable systems in Virginia hold 59.3 per cent of their markets, followed by Tennessee with 46.5 per cent.

Although Kentucky maintains the highest market saturation, it also has the lowest absolute number of subscribers. This is explained by the quantity of cable television systems in eastern Kentucky who are very small, but who maintain a very high proportion of subscribers. There seems to be a direct relationship between the number of subscribers and the average market saturation. For example, tri-state systems that have between 0 and 500 subscribers have an average market saturation of 78 per cent. Those between 501-1500 have an average penetration of 61 per cent. Cable systems with 1,501-3,500 have an average market saturation of 57 per cent, while those between 3,501-7,000 have 55 per cent, and those with 7,001 and above maintain 46 per cent penetration.

The important fact to come from these statistics is that a majority (55 per cent) of the population is "on the cable" in those

communities in central Appalachia served by cable television. In other words, although cable does not reach everyone in central Appalachia, it does reach a significant enough number of people to make it worthwhile to use cable as a communication tool.

Channel Capacity

Prerequisite to the provision of local program origination services, or any number of other non-broadcast services, is the availability of channel space. It is, of course, cable's capability to provide such channel space that makes these services conceivable in the first place. Although carriage of conventional television is the major priority of cable operators and subscribers alike, it is unlikely that twenty, or even more unlikely, forty channels, will be filled with conventional television. Those surplus channels provide the real promise of cable television.

The number of television channels that a coaxial cable can carry is determined by the size of the cable and the sophistication of the associated electronic gear. Early systems were capable of providing six channels; later twelve channels became standard and now twenty channel systems are becoming common. Quite a number of four, five and six channel cable systems are still operating within central Appalachia. Most of these systems with restricted channel capacity have no surplus channels, therefore before any local origination may take place in those locations the system must be substantially rebuilt.

A telephone survey of all cable systems operating within the six development districts that were under special study revealed that seventeen of the forty-three systems, or 39.5 per cent, had no excess channel space available. The remaining twenty-six systems had anywhere from one to thirteen unfilled channels. (See Appendix C)

Without surplus channel capacity, cable systems are limited to nothing more than master antenna services, no matter how many television signals they attract. This is not to denigrate the substantial contributions that first-generation cable systems have made and are making, but it has been made abundantly clear, from both within and without the industry, that this service is no longer enough.

Cable and the FCC

Regulatory Evolution

For the last several years the Federal Communications Commission (FCC) has been searching for a way of opening up cable's potential to serve the public without undermining the foundation of the existing over-the-air broadcast structure. The mandatory program origination ruling of October 1969, was a step in that direction. The Commission, in August, 1971, presented to Congress a package of rules regarding cable TV. The Commission feels that this new package will get cable moving quickly to benefit the public, but without jeopardizing the structure of broadcast television.

Essentially, the FCC's plan permits the importation of distant signals into the top 100 markets, in return for the cable industry's acceptance of the obligation to serve local educational and community needs by providing substantial non-broadcast bandwidth.

The major elements of the FCC's "Public Dividend Plan" are as follows:

A. "Minimum channel capacity of 20 channels required in all top 100 markets.

B. "Equivalence required. For each broadcast signal carried, cable systems must provide one channel for non-broadcast use.

C. "One free, dedicated, non-commercial, public access channel on non-discriminatory basis required under exclusive Federal regulation, without censorship by cable system.

D. "One free educational channel required for five years.

E. "One free governmental channel required for five years.

F. "Two-way capacity required."[1]

Applicability

The FCC has singled out the top 100 television markets for special attention. It is the consensus of the cable industry and the Commission, that if cable is to become more than a rural adjunct of

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[1]U.S. Congress, Senate, Communications Subcommittee, FCC Plans for CATV Regulation, Letter of intent from Federal Communications Commission Chairman Dean Burch submitted to Chairman of Senate Communications Subcommittee subsequent to testimony before that Committee on June 15, 1971, August 5, 1971, p. 1-40.

the broadcast television system, it must be allowed to expand into centers of concentrated population.

In order to expand into major markets, the cable industry has been allowed use of distant signals as an inducement for building a viable body of subscribers. The Commission, however, has emphasized that the cable operator cannot accept distant signals without also accepting the obligation to provide substantial non-broadcast channel space for public service.

The Commission has recommended that the following applications be observed of its access rules:

A. "The access rules will be applicable to all new systems that become operational in the top 100 markets.
In the area of study, this rule will be in effect when pending franchises are awarded in Chattanooga, Tennessee; Knoxville, Tennessee; and Roanoke, Virginia. These cities fall within the top 100 markets in the country as specified by the FCC.

B. "Currently operating systems in the top 100 markets would have five years to comply.
This rule would effect systems in current operation within a 35 mile radius of the three above named markets. For instance, Cleveland, Tennessee, would be included in Chattanooga's market area, Oak Ridge would be included in Knoxville's market area, and Ashland, Kentucky, would be included in Huntington, West Virginia's market area.

C. "Existing systems in markets below the top 100 would be required to meet these access rules when and as the system is substantially rebuilt."[2]

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[2]Ibid.

This last category includes most of the cable television systems operating within the study area of Appalachian Kentucky, Tennessee, and Virginia.

The rather loose wording of this ruling allows for varying interpretations. It is clear, however, that the Commission will not force cable systems that do not now have sufficient channel capacity, to fulfill its access regulations. It is unclear, whether systems not in top 100 markets which do have sufficient channel capacity would be required to provide a free access, governmental, and education channel.

Production Facilities

In order to foster its goal of creating a low-cost, non-discriminatory means of channel access, the FCC will require that cable operators maintain at least minimal production facilities for public use within the franchise area.

Hopefully, the Commission states, "...colleges and universities, high schools, recreation departments, churches, unions, and other community sources will have low-cost video-taping equipment available to the public."[3]

To encourage diversity in program sources, and insure availability, the Commission has made no ruling on technical standards.

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[3] Ibid., 38.

Furthermore, the Commission has encouraged utilization of one-half inch videotape equipment for program production because of the low cost.

Non-broadcast Channels

The non-broadcast channel access requirements are the most significant feature of the proposed rules. Free access to the public, access on a paid basis on the lease channels, as well as government channels all provide opportunities for the effective use of CATV to assist in solving regional problems. However, it must be noted that the potential impact of these proposed regulations upon CATV systems in Appalachia is minimized by the fact that much of the population is outside of top 100 markets.

If the courts eventually allow the mandatory program origination ruling to take effect, the requirements of that section would apply to systems below the top 100 markets which have 3,500 or more subscribers. Although the final form of cablecasting regulations is not now predictable, many systems have begun origination of programming either as a public service or in anticipation of this requirement. Even without mandatory origination, it may be expected that CATV operators who are anxious to program new material and attract subscribers will be interested in cooperating with development districts, community organizations or other service agencies by donating cable time in exchange for programming.

Program Origination

Within the study area, very few cable systems have over 3,500 subscribers. Therefore, the FCC program origination ruling, even if it had not been struck down by the courts, would have had little impact. Likewise, the provisions of the FCC's "Non-Broadcast Channel Access" requirement will not widely apply in central Appalachia because the FCC has made those regulations applicable only to top 100 markets.

For a variety of reasons, however, some few cable systems within the area are voluntarily originating programs and others are making their first tentative steps into cablecasting. Of the forty-seven systems located within the six development districts under study, fourteen systems are currently engaged in some form of non-automatic local origination. (See Appendix C)

This new emphasis on program origination is one with which many cable operators are ill prepared to cope. It is, nevertheless, the great untapped resource of cable television. Program origination could include instructional programming for home and classroom; televising of local activities, such as school board or city council meetings, community drama, civic events, or local sports; and informational and educational programming useful especially to low-income groups.

The precise coverage of a cable TV system makes it the logical medium for solving the problems of local television service, and the economics of CATV also make community television possible at a drastically reduced cost.

There are several alternatives related to just exactly who in the community should be responsible for local CATV system origination. Local origination by the CATV system operator is one such alternative.

> However, to leave this function entirely in the hands of the operator would place him in competition with all other suppliers of programming who may wish to distribute their product over the CATV system. This competitive relationship may not be desirable in the long run, since the operator, seeking to maximize the value of his programming, might restrict access and therefore limit diversity.[4]

The example of local origination in Canada also is helpful in showing the limitations of program origination under operator sponsorship.

> After as much as ten years of local origination, operators of large Canadian CATV systems tend to settle for a modest level of effort with limited experimentation...The primary function becomes public relations--maintaining favor with regulatory agencies, the government, and the public--and the secondary function attracting new subscribers. All of these factors militate against direct community involvement and against providing an outlet for the nonconformist and the unpopular point of view.[5]

An alternative to operator sponsored origination, is placing responsibility for local origination in the hands of a broad-based community association; a citizen's communications council. Local development districts might well become the parent organization of such community councils, or at least aid in their formation, as was the case

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[4]N.E. Feldman, Cable Television: Opportunities and Problems in Local Program Origination (Santa Monica, CA: Rand Corporation, 1970), p. 21.

[5]Ibid., 20.

in the Tri-cities experiment. When such councils are established, they may procure their own equipment and studio space, and operate independently or they may prefer a cooperative arrangement with the cable operator.

The first such community-operated cable channel in the United States began in December, 1968, in Dale City, Virginia, a small town twenty-five miles south of Washington, D. C. An advisory board of the local civic association, composed of one representative from each of thirteen community organizations, provided community control over programming, by establishing working policy for the system, and judging programming ideas for their value to the community.

From its beginning, Dale City Television (DCTV) used non-professional, all-volunteer personnel both behind and in front of the cameras. Housewives were trained to handle the equipment and shows were taped at the school, in private homes, and at the fire house.

Through this all-volunteer method, a one-hour news and public affairs program was produced each week and a special done on the average of once a month.

Despite its success in generating community television, DCTV faced two related major problems: financing and equipment. DCTV would not accept advertising and could not find continued financing for even its modest expenses. The equipment problem is related to budget, there simply was not enough money to properly maintain the equipment.

Although Dale City television was unable to solve its money problems and went off the air in February, 1970, it provides a successful precedent in that community television was generated by non-professionals and was significantly viewed.

Summary

An overview of cable television as it now exists in central Appalachia may not appear overly impressive. Most systems are small, averaging 1,300 subscribers per system. They have an average channel capacity of ten channels, but actually deliver an average of seven broadcasts signals.

Each system is independent and unlinked to any other. Rather than an "electronic highway" they more closely resemble a city street system, with the cable dead-ending at the city limits. Only a handful of cable operators are involved in local origination. Most systems are totally dependent upon the products of broadcast television.

Even with these limitations, area cable systems reach roughly 18 per cent of the potential audience, some 480,000 people. This figure might not seem impressive except when compared with the 9 per cent audience figure that cable has nationally. These figures reveal little however, for they compare cable television in broadcast terminology. They measure with equality where cable is and where it isn't. If compared on its own terms, by looking at the audience size in

communities penetrated by cable, it is obvious that cable can hold its own for it enjoys an average of 55 per cent penetration.

Cable television in central Appalachia, if viewed as a macro-system is discouraging. If viewed as an electronic highway, a means of facilitating the exchange of information and ideas between connected points, it is a disappointing failure. This is not to say that interconnection will not in time occur. Satellite experts, speak of low cost interconnection that will merge independent cable systems into a national network, or any number of regional configurations.

As cable is presently constituted, however, there is no overall "cable television system," if we think of "system" in its dictionary definition. Unlike macro-systems such as the broadcast television system or telephone system, cable television "micro-systems" are not interdependent, nor do they regularly interact with one another. They are independent entities that, as of yet, provide only a purely local service, with no connection or importance to even nearby communities.

Within a given community, cable television does function as a system for it interconnects many homes through its "head-end." If we focus then upon the individual micro-system, or even upon multiples of individual micro-systems, it becomes clear that the outlook is not nearly so bleak, for the community, as defined by the limits of the cable system, is the natural and primary place for the development of expanded cable services to begin.

The problem then becomes one of identifying communities that have the minimum preconditions to begin using surplus channel capacity. The natural usage of such capacity, is of course, based upon the physical configuration of the cable system, which brings us full circle and face to face again with the community.

Programming Report

This study is particularly concerned with locally produced programming, in contrast to "canned" material brought in from the outside. By virtue of its many channels and precise geographical coverage, cable television is uniquely qualified to provide programming characterized by its localism; by its concern with local issues, events, and people.

In the view of many: "The basic business of cable is the cultivation of local culture. This does not mean stenciling national network type programming on a local setting."[6] It does mean that the local cable system role is to:

> ...increase the community's awareness of their existing cultural system, thereby giving them more control over its development...Cable can enlarge the capacity of the local culture to communicate about and control its development. This control can include some decisions about importing information.[7]

There is undoubtedly much information already available that is worty of importing. It must however be

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[6]Paul Ryan, "Cable Television: The Raw and the Overcooked," Radical Software, No. 1, 1970, p. 12.

[7]Ibid.

judged by the following standard: "...local origination—by means of canned distributed products is a service to the public only insofar as these products increase the diversity of programming available."[8]

Programming Survey

In order to determine the extent of available programming, which might be used to meet public service needs within the study area, a survey was taken of some fifty commercial program suppliers and twenty-nine sources of possible educational programming.

Replies were received and classified into the following broad categories:

1) Film Libraries;
2) Church Related Programming;
3) Instructional Programing;
4) Educational Programming.

1) Film Libraries—There are many fine films available free, or at low cost from educational, industrial, governmental, institutional, and foreign sources that are available for programming on cable television that have never appeared before on broadcast television. A telecine chain is however necessary before films may be shown. They cost about $1,600 and few cable systems are yet equipped for film.

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[8]N. E. Feldman, Cable Television: Opportunities and Problems in Local Program Origination (Santa Monica, CA: Rand Corporation, 1970), p. 12.

The six-minute or forty-seven-minute film, long without a substantial audience, may be programmed on cable television, because as of yet cable is not locked into standard program formats. There is no reason why it should be, since standard time formats are an outgrowth of time scarcity which will no longer exist with multi-channel capacity.

Many films available from film distribution centers are thinly disguised public relations vehicles, provided free in order to receive wide public dissemination. Even this type of film might have some unique application to a specific community and therefore be relevant for cable programming.

The decision what to program and what not to program on cable television must be based upon its relevance to the community and the ability of the program to diversify available programming.

2) Church Related Programming—Religious programming such as "The Sacred Heart Program" or "Faith for Today" are available free of charge for cablecasting. These programs might be useful, but again, are not distributed solely for CATV use. They are designed primarily for broadcast and are carried widely by broadcast stations.

3) Instructional Series—A number of direct instructional programs are available to CATV from such organizations as Great Plains National Instructional Television Library and National Instructional Television.

Although instructional programs are shown on daytime ETV, this type of programming might be very helpful in serving particular community needs. For instance, a CATV system located in a town with a single large industry might in conjunction with that industry run an instructional series on job safety for plant employees.

4) Educational Programming—Although ETV stations, state networks, and related educational programmers will probably be an important source of future CATV programming, they are not now.

Survey replies were received from ETV stations or networks in nine of the thirteen Appalachian states. Many replied that they had no programming available, others suggested programming that would be made available but for incompatibility of video tape formats. Others mentioned difficulties in providing programming to CATV systems outside their coverage area.

Program lists were made available by the Alabama ETV Commission; WMUL-TV, Huntington, West Virginia; WWVU-TV, Morgantown, West Virginia; and WGTV, Athens, Georgia. This material was however originally produced for broadcast and in most cases recorded on two inch video tape, the standard broadcast format, but practically nonexistent in CATV systems.

National Educational Television (NET) has recently opened its program library for CATV programming. Many of these programs address themselves to important national issues such as drugs, ecology, and poverty. They are being made available at extremely low cost and in a variety of formats.

These programs could be used to give a national-local prospectus on a particular problem. For instance, a NET program on pollution could be immediately followed up by a locally-produced program. In this way the national view of a particular problem could be presented along with the relevant local parts of that problem.

Programming Models

Broadcasting in America--first radio, then television--grew out of local stations, grew to reach the urban areas, grew to interconnect many cities, and finally became national in scope. Even educational or "public" broadcasting went the same route.

In that process somehow the hometown got lost. Stations that could broadcast school board or town council meetings--and sometimes change the local history by doing so--came to reach audiences too large to care about these local matters. They also came to be more and more expensive to build and to operate, so that local issues simply could not be afforded.

Cable has the potential to reverse these processes. It can provide a means to use the power of television to generate community

involvement, dialogue, and action. It can even provide access to a medium that has long been closed to the public.

The ability of a cable system to originate programming on one or more of its surplus channels enables it to serve a minority audience—those interested in some specific local event or issue. At the same time the off-air (broadcast) channels provide service for those customers, almost certainly the majority, who want to watch mass-appeal programs. The cable system can deliberately set out to serve a minority audience without diminishing service to the majority. The free-air broadcaster with his single channel cannot serve minority and majority audiences simultaneously.

Public Service Programming

Among the things most commonly mentioned that cable can do, is provide community-based, public service programming through its local origination facilities. Such programming may cover matters of health and welfare, the interaction of local government and its constituents, social and economic needs of the community, formal and informal education, indeed, the whole range of community cultural, social, and civic events.

Much of the cablecasting that is going on now is based upon a broadcast model. Operator programmed systems, such as those in Modesto, California, and Grand Junction, Colorado, offer a mixture of programming much like a broadcast schedule, with some public interest programming

in the mix. The field is so new, and the experiences so isolated and sporadic that past experience may not be generally applicable.

The following list of programs however illustrates the wide variety of programming possible, and may serve as a useful guide to those interested in beginning local production:

Programming Offered by a Large Canadian Cable System

- "Activities of service organizations (e.g., Kiwanis, Red Feather, and Rotary Clubs).
- "Kindergarten shows arranged to entertain and educate preschool children.
- "Women's programs: fashion shows, modeling tips, beauty hints, etc. (Contributing merchants are mentioned in credits.)
- "General homemaking advice for women.
- "Knitting and weaving instruction.
- "Home furnishing and interior decorating for the low-budget housewife.
- "Swap-shop programs (individuals call the station with items for sale, and viewers call the sellers directly).
- "Calisthenics and physical culture (largely for women).
- "Home first aid taught by an organization similar to the American Red Cross.
- "Career guidance for women, including job and schooling opportunities.
- "Animal care, given by a veterinarian.
- "Gardening.
- "University programs, focusing on special campus problems, discoveries, or research, presented by

students, faculty, and administration. Includes general university information; drama and poetry readings; panel shows; discussion of issues such as academic freedom and community relations.

- "Information on local recreational opportunities—movies, theaters, places to visit, etc.
- "Concerts and variety shows (amateur, semiprofessional, and professional).
- "Popular music programs.
- "Language lessons.
- "Public speaking.
- "Travelogue series. (There has also been a series of programs on separate countries, presented by a commercial counselor or delegate of the country.)
- "Tax-return advice (often in phone-in question-and-answer format).
- "Continuing education and trade counseling for teenage dropouts and adults.
- "Talks by police on highway driving safety, regulations, and automobile maintenance advice. (On one program, a document expert discussed how to recognize counterfeit $10 and $20 bills.)
- "Discussions of drug use and abuse.
- "Interviews with members of Alcoholic Anonymous, Smokers Anonymous, Weight Watchers, Gamblers Anonymous, and ex-prisoners.
- "Automobile maintenance information.
- "Information on the use and care of snowmobiles.
- "Photography and cinematography instruction.
- "Instruction in buying and caring for guns.

- "Coverage of the industrial and business growth of the community, with an analysis of ensuring sociological changes.
- "Programs sponsored by religious groups.
- "Talks by members of the fire department on fire prevention and safety."[9]

Programming List, Lakewood, Ohio, CATV System

- "Local high school basketball, football, and softball games.
- "A one-hour children's show.
- "A teen-talk show (four high school students in a half-hour panel discussion).
- "Cooking instruction.
- "An exercise program.
- "A man-on-the-street interview program.
- "A home decorating program.
- "Interviews with (for example) city councilmen, the city engineer, and Internal Revenue Service agent.
- "A call-in 'swap-shop.'
- "Fashion shows.
- "Local news (a local news reporter collected, prepared, and presented the local news; both the 5:45 news and the 10:30 news are each repeated three times).
- "Soccer games.
- "Demonstrations of floral arrangements.
- "Demonstrations of ceramic decoration.
- "High school student reports."[10]

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[9] Ibid., p. 3.

[10] Ibid., p. 15.

The Sloan Commission Report suggests that health, education, and politics are but a few of the areas open to exploration by public service cablecasting. Their ideas on health programming have special significance for the region, for poor health practices, and services are widespread throughout Appalachia.

"I. Health Services Programming

"A. Health Care Assistance - programming directing individuals to care for themselves. Some would be of broad general interest such as medical and non-medical use of drugs, and poison control--other programming might be aimed at the elderly, the chronically ill, the pregnant woman, or young mother.

"B. Preventive Programming - basic practices in preventive health measures. Series could be prepared on nutrition, family planning, sanitation, and mental health.

"C. Medical Practice Orientation - guide to structure of medical organization, i.e., clinics, hospitals so that barriers of fear may be removed.

"D. Community Health Information - information on government health benefits and services."[11]

Health is only one of a number of area problems that may be attacked through utilization of cable television. It was this realization that prompted the LENOWISCO Planning District Commission, Dryden, Virginia to prepare a proposal aimed at helping solve the problem of its particular four county area by using cable television.

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[11]Sloan Commission on Cable Communications, On the Cable: The Television of Abundance (New York: McGraw-Hill Publishing Co., 1971), p. 103.

To attack area problems LENOWISCO has proposed one cable channel be turned over to a programming cooperative to produce local programming with the following objectives:

- "to create awareness in residents of regional and local problems, potentials, and activities.
- "to provide information on programs and services as well as a means to take advantage of each.
- "to obtain greater citizen involvement in the selection of program subject matter presented through the TV media.
- "to gain broader utilization of area resources based on increased citizen knowledge.
- "to produce locally originated programs by and for citizens of the region."[12]

In order to attack the problems of the region and satisfy the above objectives, the following list is offered as initial program categories.

1. "Programs dealing with public health and health services.
2. "Programs dealing with local government.
3. "Programs dealing with local Police services.
4. "Programs dealing with National Forest Management (Forest Rangers).
5. "Programs dealing with the coal industry in cooperation with operators, Bureau of Mines, and Ecological Groups.
6. "Programs dealing with local businesses, employment opportunities, and products.
7. "Programs dealing with early childhood education.

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[12]LENOWISCO Planning District Commission, Regional Community Cablecasting System, Unpublished proposal, Dryden, Virginia, October 1, 1971, p. 4.

8. "Programs dealing with special education.

9. "Programs dealing with vocational opportunities.

10. "Programs dealing with educational opportunities.

11. "Programs dealing with physical health education (including athletic activities).

12. "Programs dealing with contemporary affairs of interest to junior high and high school students."[13]

Community Access

It has been pointed out that there are two kinds of community programs: the kind in which the program's producer describes the community, and the kind in which the community describes itself. There is need, and room, for both.

As the Sloan Commission has said,

> ...there are in every community issues and enthusiasts for those issues. Some of the issues, no doubt, are trivial or inconsequential...But the test of the issue lies in its fate upon exposure, and the health of the community, in many respects, depends upon the ability of the enthusiastic to test their issues by exposing them.[14]

The case for community access is not based exclusively in terms of issues and grievances, although they cannot be ignored when they arise. There is also the need:

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[13] Ibid.

[14] Sloan Commission on Cable Communications, On the Cable: The Television of Abundance (New York: McGraw-Hill Publishing Co., 1971), p. 124.

> ...for the expression of common notions, for the expression of artistic and cultural endeavors; a need to serve the elderly, the deaf, the very young. There is the need to express ourself in forms that can be carried across boundaries to similar communities elsewhere and indeed to dissimilar communities, which might profit from the expression of unfamiliar views--there is a pervasive need, in short to be heard.[15]

The most important thing about public access on cable is the opportunity it represents for everyone--even the unnewsworthy non-violent--to be on television with his opinion, his play, his slides, his ideas.

Disputes now based on ignorance of other people's real feelings and positions could be erased or negotiated. Understanding could grow among groups that for the first time would be communicating amongst themselves and each other. At the same time, community self-identity could be growing as groups performed their own plays, ballets, music, and other art forms and entertainment to large or small groups of interested people at minimal cost to themselves and their audiences. The Canadians are far ahead of us in realizing that, "Communications are the thread which binds together fibers of a nation....The communications of a nation are as vital to its life as its defenses, and should receive at least as great a measure of national protection."[16]

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[15] Ibid., 125.

[16] Jerrold Oppenheim, Soapbox Television (Chicago, IL: Illinois Division, American Civil Liberties Union, June, 1971) p. 17.

Community access through cable television is well under way in Canada and the forms it has taken are as varied as its location:

Thunder Bay, Ontario

> A Thunder Bay citizens production unit is providing one evening's programming a week. The programmes are made at the request of local groups. In addition, the Lakehead Board of Education now has its own cable channel and its own studio connected to the Cable Company's head end and will shortly be originating live and taped programming of both an educational and community type.[17]

Abitibi, Quebec

> The local unions do community broadcasting over four counties, with the citizens making their own programmes.[18]

North Bay, Ontario

> The NFB distribution representative is now meeting with leading citizens to discuss ways in which citizen access to cable can be achieved. In North Bay, Hannover, Midland, Penetangushene, and Own Sound "Communications Councils" are being set up to determine uses for community channels.[19]

Fredericton, N.B.

> City-Cable Vision Ltd. has had six hours of community programming per day for the past year. It has portable units for coverage of sports and university discussions. A volunteer "Advisory Board" of eight people exists. A series on New Brunswick Indians attracted 40% of the available audience. Programmes contain phone-in audience reaction. Discussions concerning expanded community service are now taking

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[17]"What's Happening: Community Access," Radical Software, No. 4, Summer, 1971, p. 4.

[18]Ibid.

[19]Ibid.

> place, and 1/2" equipment has been acquired for use by community groups.[20]

The philosophy behind this activity was well stated in a brief to the Canadian Radio and Television Commission (C.R.T.C.) from Challenge for Change, a program of the National Film Board, established to focus on communications and social change:

> With the introduction of low-cost portable and easy to use 1/2" videotape equipment--and C.R.T.C.'s proposed community channels on cable systems ("for the enrichment of community life through fostering communications amongst individuals and community groups"), CITIZEN ACCESS TO THE MEDIA became the main thrust of the Challenge for Change programme.
>
> By preparing their own programmes for the community channels on matters of immediate concern to themselves, we felt it would be possible for ALL citizens to participate in local issues; to dialogue with their elected officials; to tap into various information sources and generally to express themselves in whatever way they wanted--be it political debate or cultural expression, or just talking WITH each other across distances of time, and space, and misunderstanding. It could reintroduce the human scale into problem solving and indeed make local problem solving everyone's concern. The danger would be that monologue instead of dialogue: one way communication instead of feedback; and "coverage" rather than an exchange of informed opinion would turn the channel into a Tower of Babel. However, given the timidity of much local media, the "economic disinterest" of the national media and the almost complete lack of access for the ordinary guy, we felt that the Challenge for Change philosophy adapted to true citizen access to the community channels would be a positive way of encouraging people to participate rather than spectate in determining their own present and future.[21]

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[20] Ibid.

[21] "Brief to the Canadian Radio-Television Commission," Radical Software, No. 4, Summer, 1971, p. 2.

Although those rural areas outside the top 100 markets enjoy no regulatory guarantees for the "one free, dedicated, non-commercial, public-access channel" that the FCC has required for America's urban citizens, there is an alternative. Lease agreements may be the answer. A leased channel, set aside for the purpose of public access, could achieve the same goals that FCC regulation will achieve in the nation's cities.

The provision of open channels, in and of itself, will not be enough to bring public access television into general use. Without some kind of promotional agency within the community, capable of providing assistance to groups interested in using the channels, they simply will not be used.

In Canada this function has been performed by the National Film Board. In New York City, where public access channels were required by the franchise agreement, two groups have appeared to promote public access.

The Sloan Commission has outlined the function of such promotional groups,

> ...management of access, representation of the public in the formulation of rates and regulations, educating community groups in the manner in which they can use access to further their purposes, assuring the existence of low-cost production facilities, and furnishing seed money and training for actual production.[22]

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[22]Sloan Commission on Cable Communications, On the Cable: The Television of Abundance (New York: McGraw-Hill Publishing Co., 1971), p. 128.

The nature of this promotional agency will most likely vary from community to community, but public access television has little chance of viability without such a catalytic force whatever its structure.

Community Needs Report

Three methods were used to ascertain community needs. A questionnaire was designed to determine community needs and distributed to cable TV operators, development district personnel, and other participants of the Kentucky and Tennessee "CATV-Community Development" Conferences. An ascertainment of community needs survey was gathered from broadcast outlets in Kentucky, Tennessee, and Virginia, and on-site visitations were made in Virginia.

CATV-Community Development Questionnaire

Part (A), entitled "Community Needs," of the questionnaire was designed not only to ascertain community needs, but to rank the importance of identified problems. This form was adapted from a standard form used by many broadcasters to determine community needs.

Community problems considered to be the most pressing were: (1) education, (2) unemployment, and (3) transportation. Secondary problems identified by respondents included: crime, pollution, racial conflict, health, economic underdevelopment, lack of recreation facilities, lack of adequate medical facilities, local government financing, and water and sewer improvement.

All respondents felt that the problems of their community were not unique, but they were shared by other communities within the Appalachian section of their state, and, indeed are shared by the rest of the region.

Programming Needs

Fifty-seven percent of those taking the survey felt that the media was not sufficiently informing local communities about local issues. Of the remaining 43 percent which felt that the media was sufficiently informing communities of local events, the majority came from large urban areas.

The majority of those taking the survey felt that local program origination by CATV systems, concentrating on health, education, and civil events, would help in dealing with the previously mentioned community problems. When asked to rank, in order of importance, five types of programs that a local CATV system might produce, the majority responded by choosing local news programs and instructional programs ("How To" and "Adult Education") as most important. Instructional programs were ranked second in importance. Public Affairs (election returns, special issues, telethons) were ranked third in importance; coverage of governmental meetings (city council) was listed as fourth; and local sports (high school, little league) were considered least important.

In reference to development districts and cable television, those problems stated by development district personnel as being of major hindrance to cooperative

development district - CATV programming were: (1) unavailability of CATV, (2) lack of equipment and lack of staff, and (3) financing production. When asked if on-site technical assistance in programming utilization and production would be helpful in stimulating the development district to begin CATV programming, the majority (75 percent) replied that it would.

Area Broadcasters Needs Survey

In their license renewal applications, broadcasters, by FCC regulation, must include results of a community needs survey. This survey is taken within the station's service area by asking local citizens their opinions related to community problems.

For the purpose of this study, ascertainment of need forms were gathered from radio and television stations located within the development districts under special investigation.

The summarized results of those local surveys are as follows:

1. GATEWAY AREA DEVELOPMENT DISTRICT

   Morehead, Kentucky, WMOR - AM and FM

   The four problems that stood out most in our survey were: (1) the need of recreational facilities, (2) narrow streets, (3) drugs, (4) alcohol, and (5) law enforcement.[23]

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[23]U.S. Federal Communications Commission, Statement of AM or FM Program Service, Form 303, Section IV-A. Statement on ascertainment of community needs by radio station WMOR, Morehead, KY, April 28, 1970, Exhibit 3.

Mt. Sterling, Kentucky, WMST - AM and FM

Local problems--growing pains of the community, environmental problems, need for expanded recreational opportunities, juvenile crime, use of alcohol, and drugs.

Bath County

Lack of local industry.

Menifee County

Local problems--poverty, needs a hospital, sewer system, and entertainment.

Powell County

Flood control problem.[24]

2. KENTUCKY RIVER DEVELOPMENT DISTRICT

Whitesburg, Kentucky, WTCW - AM and FM

The significant needs and interests expressed in the survey are as follows: (1) job opportunities, (2) industrial development, (3) sewage system, (4) roads and bridge construction, (5) parking facilities, (6) pollution of air and water, and (7) education.[25]

Hazard, Kentucky, WKYH - TV

A cross section of the interviews indicated the following needs in programming this area: (1) an area-wide indication of interest and identity, (2) an area-wide responsible news

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[24]U.S. Federal Communications Commission, Statement of Am or FM Program Service, Form 303, Section IV-A. Statement on ascertainment of community needs by radio station WMST, Mt. Sterling, KY, April 29, 1970, Exhibit 9.

[25]U.S. Federal Communications Commission, Statement of AM or FM Program Service, Form 303, Section IV-A. Statement on ascertainment of community needs by radio station WTCW, Whitesburg, KY, Exhibit 4.

coverage, (3) an area-wide information type interview, (4) panel type discussions of current events relating to our area, (5) programs of local cities' and counties' public affairs, projecting self-help type approach as well as state and federal cost-sharing opportunities, (6) cultural and educational programming, (7) area law enforcement program, (8) spiritual type presentation, (9) programs which will tend to encourage the individual and instill in him personal pride and ambition (opportunities presented through vocational rehabilitation and training), and (10) programs that will tend to encourage young people through cultural development and personal achievement.[26]

3. FIRST TENNESSEE-VIRGINIA DEVELOPMENT DISTRICT

Tri-Cities (Bristol, Virginia; Kingsport, Tennessee, Johnson City, Tennessee - WCYB - TV

The major needs for this area are: (1) need for awareness of problems and benefits of community cooperation, (2) governmental cooperation and planning to solve problems to avoid duplication of effort, (3) roads and highways, (4) development of recreational and tourist areas, (5) education, vocational training, (6) sewage disposal and treatment, control of industrial pollution, (7) exposing the values of the general area to the outside world to develop further industrial financial growth, and (8) housing.

Individual Needs of the Four Counties

Washington County, Virginia

(1) government consolidation, (2) housing.

Carter County, Tennessee

(1) schools, (2) roads, and (3) sewage treatment.

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[26]U.S. Federal Communications Commission, Statement of TV Program Service, Form 315, Section IV-B. Statement on ascertainment of community needs by television station WKYH-TV, Hazard, KY, June 19, 1967, Amendment Section IV B.

Sullivan County, Tennessee

(1) employment, vocational training, (2) in-depth discussion of public issues.

Washington County, Tennessee

(1) schools.[27]

4. LENOWISCO DEVELOPMENT DISTRICT

Norton, Virginia - WNVA

(1) improved water system, (2) more schools, (3) development of tourism, (4) improvement of local highways, (5) better housing, (6) recreational facilities, and (7) improved medical facilities.[28]

On-Site Visitation

According to Mr. Neal Barber, Planning Assistant for the LENOWISCO Planning District Commission, Dryden, Virginia: "...the LENOWISCO area has suffered economic deprivation over the years which has caused a number of problems; personal hardships, inadequate public and governmental services and the misuse of natural resources in the area."[29]

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[27]U.S. Federal Communications Commission, Statement of TV Program Service, Form 315, Section iV-B. Statement on ascertainment of community needs by television station WCYB-TV, Bristol, VA, Johnson City-Kingsport, Tenn., March 23, 1970, Exhibit 3, p. 1-7.

[28]U.S. Federal Communications Commission, Statement of AM or FM Program Service, Form 303, Section lV-A. Statement on ascertainment of community needs by radio station WNVA, Norton, VA, August 15, 1969, Exhibit 4.

[29]Neal Barber, private interview in Wise, Virginia, November, 1971.

A sample of some of the major problems are listed below:

1. "Low level of public health practices in the region.
2. "Inadequate health services to area residents.
3. "Misuse of existing natural resources.
4. "Inadequate conservation practices for the preservation of natural resources.
5. "Lack of employment opportunities for area residents.
6. "Employment in traditional low income occupations.
7. "High incidences of dependency on public assistance.
8. "Low level of education of area residents.
9. "Limited and inadequate provisions of governmental services.
10. "Inadequate quality and supply of housing for low and moderate income families."[30]

These problems are also compounded by the following aspects of the people within the region:

A. "Lack of awareness on the part of the residents of the LENOWISCO area as to regional problems and resources which could be utilized to solve existing problems.

B. "Lack of awareness among residents as to assets and potentials inherent in the people themselves and the institutions of the region.

C. "Lack of grass roots participation in community decision making based in part on insufficient knowledge as to how problems may be solved."[31]

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[30]LENOWISCO Planning District Commission, Regional Community Cablecasting System, Unpublished proposal, Dryden, Virginia, October 1, 1971, p. 5.

[31]Ibid.

Summary

It hardly warrants restating that the problems identified within the study area by this ascertainment of needs survey are those that are common throughout Appalachia. Furthermore, many of these problems may be considered communications problems.

The area, and the region as a whole, has a valuable communications resource to aid in the solution of its problem that is as yet virtually untouched. That resource is cable television.

Through imaginative local programming the medium could be used to generally improve communications in the region; to alert people of problems in health, housing, and unemployment; to suggest ways of taking advantage of education, employment, and training opportunities; and to build strong community support for efforts to solve local and regional social problems.

Technical Report

Introduction

This report will involve technical aspects of the production and distribution of public service programming. Under the production classification, existing equipment and its applications to cable television use is examined, and secondly existing distribution systems and the interface of these systems with new distribution systems is analyzed.

Production

Questions of hardware for production are, of course, intimately linked to the software, or programming intended to be produced. The software, in turn, is effected by the limitations and capabilities of available hardware. Software is however, equally affected by such matters as available funds, the technical know-how of prospective users of the equipment, foreseeable conditions of equipment use, and the intended audience. Prerequisite to selection of hardware then, must be a whole series of policy decisions based upon the intended application of that hardware.

Cable technology has specific attributes that predispose it for community use of the medium, and community access to the medium. It is therefore specified that required equipment must aid in meeting those ends.

Each mode of production that follows must be judged upon its ability to perform effectively and economically within the unique set of requirements that exist in producing "community programming" through cable television.

Film

A basic 16mm film equipment package (camera, audio recorder, microphones, lights, editing equipment) could be set up for approximately $15,000. Processing, printing, and mixing can be handled by any of a number of laboratories in the area.

Film has the advantage of portability; it can go anywhere a person can go. On the other hand, 16mm film has a number of disadvantages for cable utilization. Only a minority of cable systems have film playback equipment, even though it may be expected that as program origination becomes more prevalent, more systems will add film chains. Film is however, still hampered by its complexity, its expense, and its dependence on processing, editing and mixing in order to get a finished product.

Some experimentation has been going on recently with super 8mm film for origination on cable television. This holds some promise, for the equipment, both for production and subsequent playback, is much less expensive and complex than is 16mm. Film however, no matter what its size, shares the disadvantage of dependence upon extensive postshooting procedures, that inevitably leads to considerable lag between the finished filmed event, and the event itself.

Tape

There are now at least three standards of videotape and a fourth, and possibly fifth, standard on their way: two-inch, one-inch, half-inch, quarter-inch, and possibly three-quarter inch.

Two-inch or "high-band" tape systems are indigenous to broadcast television and are exclusively low access systems. The equipment is very costly ($85,000 per color camera) and therefore out of reach of almost everybody,

including cable systems. It is very complex and requires trained technical personnel for its operation and maintenance, therefore further limiting access to its use. Two-inch equipment is unsuited to roving remote usage because of its size and weight and therefore is limited in its abilities for extensive field utilization.

Generally, the wider the tape the more information it can hold. Two-inch systems, also called "quadraplex," lay the scanning signal perpendicular to the edge of the tape. All one and half-inch systems incorporate helical scan which lays the signal at an angle to the tape edge.

Typically, clean editing was once an exclusive function of two-inch machines. One-inch was first used as a cheaper version as their size and price range ($3,000 to $10,000) make them ideal for institutions with closed-circuit TV systems which imitate broadcast. As with two-inch, its editing capability is perfect. Although less expensive and complex than its two-inch predecessor, one-inch hardware still must be largely confined to studio and remote van use. There are no one-inch portable videotape recorders.

The major technical problem with half-inch systems has been an unstable signal which precluded clean edits and even intra-system compatibility in some cases. Many of these problems have been diminished since half-inch videotape systems were first introduced. There is now a Japanese standard of intersystem compatibility between

manufacturers, although not all the portables share it, which has a stable enough signal to be perfectly edited on relatively inexpensive (approximately $950) half-inch editing decks.

Many cable systems have used one-half inch videotape for cablecasting with good results. Even the FCC has encouraged use of one-half inch for as they have stated,

> ...the use of half-inch video tape is growing and hopeful indication that low-cost videotape recording equipment can and will be made available to the public. While such equipment does not now meet our technical standards for broadcasting, the prospects for its improvement and refinement are excellent. Further, since it provides an inexpensive means of program production, we see no reason why its development should not be encouraged for use on cable channels.[32]

The rapidly advancing technology of portable one-half inch video is a natural and inevitable resource to tie into community programming via cable. Like film, portable video has the advantage, of true portability without films disadvantages. The portable video recorder is much less complicated to use than the motion picture camera, so much so that the neophyte can start shooting right away and obtain decent results after only a few minutes worth of instructions.

Videotape, moreover--unlike film--is erasable and re-usable, which renders it both more versatile and more economical. The tape can

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[32]U.S. Congress, Senate, Communications Subcommittee, FCC Plans for CATV Regulation. Letter of intent from Federal Communications Commission Chairman Dean Burch submitted to Chairman of Senate Communications Subcommittee subsequent to testimony before that Committee on June 15, 1971, August 5, 1971, p. 38.

be rewound or fast-forwarded at high speeds and has capability for sound built right in.

Most important of all, videotape doesn't require development as does film; replay can be instantaneous. The medium is also more personal and less public than film. Videotape does not need a darkened room nor a projector, or screen to be viewed. Instead, it is capable of becoming, like a home television set, a part of one's everyday environment.

Some brands of portable equipment include a small monitor as an integral part of the shooting ensemble. At least one widely used model permits patching of tape directly into an ordinary TV receiver. Also, tapes can be easily reproduced and transported, or converted to film for projection. Thus, from the viewer's standpoint too, video is easy to get at, anywhere, anytime.

It is such features as these, that make portable half-inch video a "people's" medium, affording the man-in-the-street the opportunity to have access to the instruments for producing information. Tied into cable he also has the opportunity for its distribution.

Distribution, Interconnection

For the purposes of this report, the systems used to transport program, film or tape, to the home receiver will be considered to be broken down into two types; interconnection and distribution. Interconnection systems link distribution systems. Distribution systems are local in scope and interconnection systems serve a larger area.

Figure 2 illustrates the relationship between systems and the path or paths of the program input to the home receiver. Let us consider elements and paths.

Cable Systems

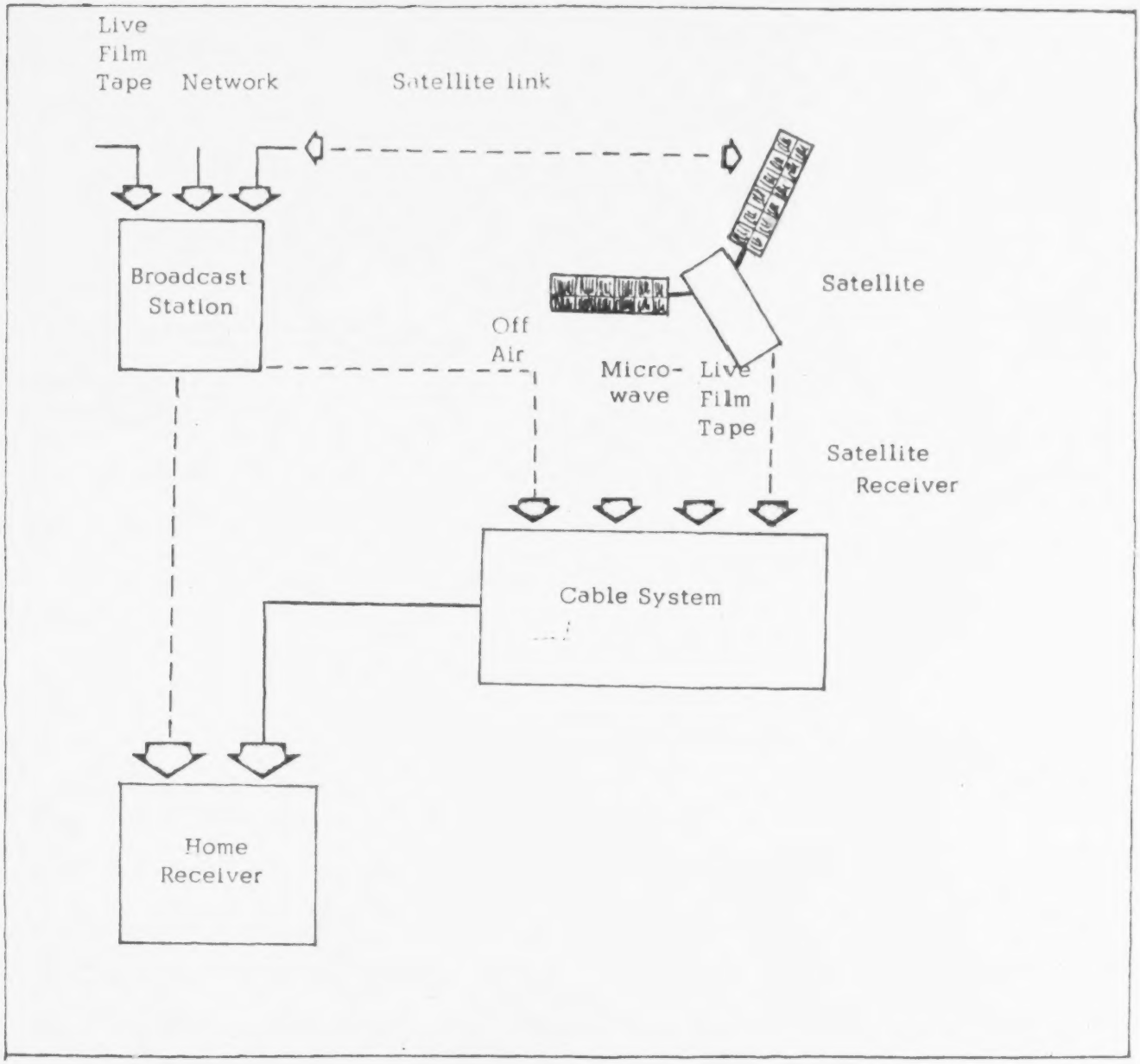
As previously stated, Appalachia is dotted with hundreds of cable systems ranging in size from those serving a handful of subscribers to systems serving thousands.

These systems receive commercial and educational VHF and UHF broadcast stations and distribute them to homes and schools, generally within the confines of one community. Their raison d'etre, of course, is the mountainous terrain of Appalachia which indiscriminately interferes with home reception of all television broadcast stations. Without cable systems, television signals would simply not reach into many mountain areas.

Excess channel capacity, over and above the channels carrying broadcast signals, makes possible the local origination of programming. Since cable is fundamentally a distribution system, its pattern of distribution is primarily local. Since its technology and audience is local, the software distributed by cable systems is apt to deal primarily with community concerns.

Tape Networks

One possible way of getting programs to the home receiver is to bicycle video tapes to the cable systems having video tape recorders.



INTERCONNECTION AND DISTRIBUTION SYSTEMS
Figure 2

Key

Off-air ----------
Cable link _ _____

This method has been used for years by ETV stations to exchange programs. Other than the vagaries of the postal service, no problems have occurred because all of the stations involved used the same video tape recorder standard. This, unfortunately, is not true in the case of the cable systems. There are over fifty slant track standards in use. So tapes cannot be exchanged unless both parties have the same type and brand of recorder. In order to distribute tapes to a large number of systems, it would be necessary to have a recorder in the dubbing center for each different type in use. These recorders range from $500 to $10,000 in cost.

Microwave

One possible way of interconnecting the cable distribution systems is by the use of microwave relay.

It is possible to construct and operate in the CARS (Community Antenna Relay Service) band 12.7 - 12.95 relays to feed programs to systems. There are now two systems in existence for multi-channel microwave for cable television local distribution service. Anywhere from 18 to 38 channels can be transmitted simultaneously from one multi-channel microwave transmitter. The signal reaches out at distances up to 20-25 miles and in any direction from the transmitter. To interconnect all Appalachian cable systems through this means would be inordinately expensive, since a single hop microwave relay would cost about $20,000. Multi-channel microwave, however, does have its rural applications.

Often the best antenna and headend site for a rural community is high up on a mountain with rugged terrain over which the "long-haul" trunkline must be installed and maintained.

Multi-channel microwave eliminates the need for expensive "long-haul" coaxial cable installation to get to the first active branch of the trunk and feeder lines. Moreover, the signal which replaces the coax is not subject to high wind and ice damage.

Many rural communities are not being served by cable television as their populations are not great enough to make a CATV system profitable. In cases where there are several of these smaller communities located within a 20 mile radius of a central point, a single transmitter can serve a receiver located in each of these communities, creating a profitable basis for a CATV system.

There are also many existing CATV systems in smaller communities which have outlying settlements surrounding them. However, stringing "dry run" trunkline long distances over the countrysides to serve them has not been considered economically feasible. These isolated settlements can be reached economically and with better picture quality than would be delivered the same distance by cable, if multi-channel microwave were used.

Additionally, reaching these pockets of homes or other communities often means dealing with topographic situations which would make cable installation and maintenance too costly. Microwave service can solve

these application problems at a cost lower than cable installation, and can do it in much less time than it would take for trunkline cable construction.

Microwave is an interconnection system and therefore an instrument of centralization. If microwave linked cable systems are to avoid the problems of over-centralization that broadcasters are faced with, the capability to break away from the central source must be built into the system from the beginning. The capability must be there to not only "playback" what comes down the line from the central transmitter, but to "record," in other words to produce one's own programming.

Because broadcasters have only one channel, they cannot do both simultaneously. So they have forfeited their "local option" for the far more "professional" product to come from NBC, CBS, ABC, and indeed even PBS. Because of cable's multiple channel capability, the game is no longer an "either/or" situation; cable can carry the local election returns and the networks and independents and anything else that will fit on twelve, twenty or even forty channels.

If microwave systems are built, they must be constructed so that all connections have the capability of local origination. For an additional investment of $1,500 per site, the capability for decentralization and therefore increased access is assured.

Telephone Company

The common carriers can provide interconnection between systems. Their CATV rate is $31.50 per mile per month and extrapolation of this into an area wide system will result in a hefty operating figure. This interconnection by them uses both video cable and microwave.

Satellites

One method of interconnection which holds great promise is that of satellite relay.

In the Spring of 1973, NASA will launch an experimental satellite called ATS-F. Two channels will be allocated to educational communications in the 2500 Mhz band. With this system, it would be possible to go to selected receiving locations on the ground such as schools, cable systems, and ETV stations.

Because of the cost of the receiver-converter and the size of the receiving dish, it appears unlikely at this time and for some time to come that direct satellite to home transmission will be possible.

Proponents of the system are claiming a $500 per receiving location. This should be considered with suspicion since present ITFS systems operating on the ground utilize 2500 Mhz and the down-converter cost of these is on the order of $1,500. It should be expected that satellite transmission over longer distances will create more technical problems which may increase the cost.

Even with increased cost, it is not unrealistic to consider a satellite receiving system as being within the reach of many cable systems.

ETV

Already existing within the study area are statewide ETV networks and stations. These are interconnected by private and common carrier systems into centralized state networks and are affiliates of a national network provided through the Public Broadcast Service (PBS).

Most of the cable systems in the study area carry ETV stations as they are required to do by the FCC. Therefore, some programs of public service are reaching into the area. ETV, however, has evolved to a level of centralization one step below the strong national configuration of commercial television and one step above the community. Therefore, it too cannot truly serve the need for local television service, although it could be a powerful ally in the inception of such service via cable.

Aid in training, and utilization and possibly even use of production facilities for programming could be very helpful in beginning a joint venture between ETV stations and networks and local cable systems.

Summary

Generally, it appears that the technology is available to transport public service or educational communications in just about any mode. There does not appear to be any single transmission method which can

reach every home in central Appalachia. By using a combination of all of the existing systems, broadcast and cable, plus possible satellite utilization, most of the homes can be reached.

Reaching the homes is of course important, in fact, prerequisite to providing any of the services discussed throughout this study. The question remains however, "now that you can talk to Appalachia, what are you going to say?" The configuration of the technology itself molds the nature of the message to be transmitted through it. It would be poor usage of urban based broadcast television, for instance, to address itself for an extended period of time to a local issue in a rural community.

As available communication systems are now configured, that service should be provided by cable television, for its technology is based locally. Therefore, its message is, like broadcast, molded by the channel through which it is carried. Whatever future possibilities it might have for providing a "television of abundance," cable television is able, as radiated television is not, to serve its own community and that community alone.

Flowing from this fact, has come the choice of half inch portable equipment, for it is simple to operate and inexpensive; therefore, making "talking to Appalachia" a discussion most anyone can have. Flowing from the ease of equipment usage, plus cable's surplus channel capability, comes the suggestion for citizens access to the medium. For if

the technology of cable is to truly serve man's needs, a means must be provided from the beginning to not only facilitate the increased flow of information but the means for individual access and control of that information.

IV. CONCLUSION AND RECOMMENDATIONS

This study did not raise for the first time the matter of using electronic media for community development in Appalachia. In 1966 a special committee of the National Association of Educational Broadcasters (NAEB) suggested formation of a regional network of educational radio and television stations to aid in the implementation of the Appalachian development program.

Although such a network was never formed, an answering paper to the NAEB proposal noted that "...educational television could be of tremendously significant value to the people of Appalachia if it were to direct a major portion of its programming to very basic needs of Appalachia's educationally needy persons."[1]

The same paper also suggested that consideration be given "...a form of television station which would originate most of its own programming (very simply produced) and concentrate as much as possible on local information..."[2]

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[1]Boyd W. Fellows, Educational Broadcasting As A Tool For Appalachian Development, Washington, DC, June 30, 1966, p. 8.

[2]Ibid., 4.

Taken together, these observations, although originally delivered in a broadcast context, amount to an endorsement of cable television usage for provision of those local television services the region so sorely needs.

It has been the contention, throughout this paper, that cable television has specific attributes that predispose it for specific community applications. The study began with an exclusive focus on one of those attributes, local origination of programming. As research progressed, it became apparent that local program origination was only one part of a larger whole.

It appears that any comprehensive scheme for development of cable television for public service purposes in Appalachia must include some means of access to the medium for those not now served, some means of influencing communities considering franchises, some way of instituting "community access" channels, some way of fostering broadband cable services to rural areas.

If the parameters of the study widened during its course, it was because of the tremendous potential inherent in cable, beyond its capacity for local programming. Others have also seen that potential.

Dr. Peter Goldmark, ex-chief of CBS lab, will soon begin a project entitled, "Cities of the Future," which will establish cable and microwave links between cities and small rural towns in Connecticut, so that smalltown dwellers can enjoy the benefits of big city hospitals, schools, businesses, and cultural facilities.

Educational broadcasters are stirring with the notion of including cable in the fold and turning their facilities into "telecommunication centers." Experiments are going on now with two-way cable communications, dial access information retrieval through cable, and cable-computer links.

Between the promise of cable and its realization, however, lies a plethora of legal, political, economic, and technical problems of extraordinary complexity. As indicated before, cable has the potential to become an important tool for development throughout Appalachia. Opportunity however is not inevitability. Potential is not program.

To transform the dream into reality in Appalachia will require effort, leadership, money, and of course, careful planning. Here then are the major conclusions of the study, which hopefully may provide the direction of future plans.

Conclusions

1) It is in the public interest to encourage the development of cable television in central Appalachia, and indeed throughout the region.

2) Local origination of public service programming by the majority of cable systems in central Appalachia is feasible, does serve the public interest and should therefore be encouraged.

There is wide agreement in the field that local program origination via cable should be supported. Such divergent national organizations as the Rand Corporation, the Federal Communications Commission, the

National Cable Television Association, the Sloan Commission on Cable Communications, the Urban Institute, and Publicable have endorsed cable originated community programming.

Representatives from the cable industry itself, namely Cypress Communications, Teleprompter, and Time-Life Broadcasting, have in recent months, formulated policies for their member systems that are highly supportive of local program origination.

In the region, the Tennessee Valley Authority has expressed interest in development of public service cablecasting, as have many cable operators and all six local development districts contacted during the course of the study.

3) Local origination by means of canned distributed programming is a public service only insofar as these products diversify available programming.

4) Cable television systems should be encouraged to make at least one channel available full time for local origination by broad-based community associations.

It is doubtful whether it is sensible for the cable company to be the sole authority for control of all programming decisions. To leave this function entirely up to the operator would place him in competition with other suppliers of programming. Thus, in order to maximize the appeal of his programming, it would be in his self interest to restrict access and therefore limit diversity.

The community association, or council, provides the best hope for grass-roots television. Such councils would assure the relevancy of local programming to community problems and insure that the community-at-large has the privilege of using the local channel.

To insure that such local coordinating bodies will not be dominated by political or commercial interests, it is possible that some form of rotating council be devised. The form such councils will take will most probably vary from one location to another. Some may wish to incorporate, procure equipment and operate more or less independently of the cable operator, others may favor a looser voluntary association with close ties to the cable system.

5) Local programming done by citizen's councils should originate primarily in the community and involve the community as much as possible in the production process.

In practice "local programming" by cable companies means restrained experimentation and a tendency to avoid controversial issues and personalities. It means perfunctory originations with the cable company deciding who, and therefore, who does not go on the cable. It means canned distributed programs, in a mix with modest efforts toward public service. All too often it means that the publics right to know must be tempered by the public relations value of that knowledge.

Community programming, on the other hand, means that the major part of programming must be originated in the community by

community participation. The act of community production is itself a developmental process for those involved and therefore becomes input into the total developmental function. Although there is a place for production done outside the community, it lacks the element of community involvement.

Community programming also means that everyone has the right of access to the local channel. It is not a favor to be granted by the cable company.

6) Feedback should be strongly encouraged as an essential part of community programming. This two-way process could take place by a variety of means; wired locations with built-in audio and video equipment, phone-in audience reactions or open-ended audience participation shows. Eventually two-way cable will take care of this need for feedback, but until then the other means of feedback must suffice.

7) Minority groups should be encouraged to produce their own programs for the community channel.

8) The use of one-half inch videotape for cablecasting is feasible and its supporting technology is steadily being improved. The FCC, the Sloan Commission and New York's Alternate Media Center, are but a few of the organizations that have actively supported usage of low-cost, one-half inch videotape in order to maximize public access to cable.

Cable systems in Chillocothe, Ohio; Charleston, West Virginia; and New York City have successfully put one-half inch recorded programs "on the cable." Adoption of common standards by Japanese manufacturers in 1971 has assured compatability between all one-half inch VTR's manufactured since that date.

9) Truly portable one-half inch videotape is essential if programming is to escape from the limitations of the studio.

10) It is quite possible for "beginners" to produce interesting programs for cablecasting after short duration training. Videotapes that are done by community people will not have the professional polish of conventional television, but if the product is closely involved with the community life the audience will forgive unprofessional quality.

Local programs have proved popular wherever they have been produced. Data gathered by Dale City Television revealed that with prior reminders, about one-third of those watching TV were watching the local origination channel. Without prior notification of any kind the viewing audience was estimated at about 17 percent of those watching television. One Canadian system, which went to unusual lengths to ascertain its audience for its local programs, concluded that about 24 percent of its subscribers watched them.

11) A production nucleus is essential to guarantee production continuity, adequate technical standards, initiation of programming, coordination of groups interested in programming, and training community people in video.

12) Some way of continuous funding must be found to support community programming.

Although production costs are very low, especially in comparison with broadcast television, they are more than many small communities could support themselves. On the basis of the Dale City, Virginia, experience, it is apparent that a $5,000 investment for local origination equipment is simply not adequate.

According to the Rand Corporation, an initial investment of between $15,000 and $25,000 is suggested in order to attain reliable performance.[3] The CRTC suggests that cable origination equipment may be set up for about $10,000.[4]

The basic cost of programming ran about $25 an hour for the Dale City system. This is, however, extremely low even for cable origination, for all of the crew members were non-paid volunteers. The Dale City volunteers produced two hours of programming per week, the yearly production cost then, including operating costs would be about $2,500. Assuming a yearly maintenance allowance of 10 percent of the capital investment for equipment, that means another $2,500. There was no cost for transmission, or channel lease, therefore, the total yearly cost for a properly equipped volunteer run

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[3] N. E. Feldman, Cable Television: Opportunities and Problems in Local Program Origination (Santa Monica: Rand Corporation, 1970), p. 26.

[4] Canadian Radio-Television Commission, Cable Television in Canada (Ottawa: Canadian Radio-Television Commission, 1971), p. 6.

system producing an average of two hours a week is estimated at $5,000 a year.

The CRTC has figured that with paid staff, per hour costs are running less than $100 an hour. Most systems in Canada that have begun community programming are producing about 10 hours a week. Below about four hours a week, costs do not diminish much; and as production increases, cost per hour declines. The CRTC estimated that providing an operator run community channel will cost at least $20,000 a year.

Even if a grant were available to purchase the studio equipment, and the cable company made no charge for transmission, the recurring costs for operating and maintaining a community channel would still exceed the resources of most communities.

There are several alternatives for financing local "community programming":

1) Maintain the existing subscription rate and have the cable operator subsidize the local origination efforts out of the profits of running his system.

According to Robert Peters of the Stanford Research Institute a cable system" ...can expect to increase its subscribers by 10 percent, if it offers a reasonable series of automated local/live and prerecorded programs. This increase in number represents an increase in potential monthly revenue of $500 per 1,000 sub-

scribers in the system."[5] These funds can then be put back into support of local programming.

2) Increase the subscription rate with the proviso that a percentage of the subscription be used for support of community programming.

3) Allow "institutional" advertising, or underwriting of programs. For instance, the local bank underwrites the cost for a consumer education series, therefore deferring costs from the production agency.

4) Partially exempt the station doing local programs of certain local and state taxes.

13) The pursuit of domestic satellite utilization for cable interconnection in the region is highly encouraged. The ATS satellite, to be launched in 1973, could provide an inexpensive means for interconnecting the many CATV systems throughout the region. Regional interconnection can be used to make local issues available to all concerned, since some fraction of locally originated programming will have appeal outside the immediate community where it is produced.

14) The Appalachian Regional Commission should be playing a much more active role in the regulatory matters that will determine the future of cable TV and therefore significantly effect the Appalachian population.

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[5]Robert W. Peters, "Local Origination—The First Step of CATV's Second Generation." (Paper presented at the 20th Annual Convention of the National Cable Television Association, Washington, D. C., 1968), p. 4.

For instance, the FCC's CATV rule package that was adopted in March, 1972, will not apply to those CATV systems outside the top 100 markets. In addition to discriminating against the large percentage of the population beyond the radius of the few major metropolitan centers within the Appalachian region, it also robs them of the public service benefits they sorely need. The Appalachian Regional Commission would be abdicating its responsibility to serve the best interests of the people of Appalachia, if it did not file comments with the FCC on its views of additional cable rulings that may have impact upon Appalachia.

Recommendations

It is clear that the next several years will be formative ones for the future of public usage of cable television. During this crucial time of cable's transition, a strong research, demonstration, and development effort should be mounted to provide a better understanding of its capabilities and limitations, to demonstrate its innovative uses; and to develop new applications for cable communications to serve Appalachia. Such efforts are essential if cable television is to grow in a manner commensurate with public need.

Such efforts, however, are not likely to take place within the present industry framework. The cable industry as a whole has done little in the general area of research, demonstration, or development. The operators, do none at all and the equipment manufacturers dwell exclusively on the technology per se.

As the Sloan Commission has previously said it is unrealistic to expect support of a broad research and development program by the private sector that may ultimately alter the format both of the cable system itself and the character of program provided by that system. The federal government and private foundations are then the only possible sources of funds.[6]

Funding for such purposes and activities might be sought from a wide variety of sources including the U.S. government, through the Department of Health, Education, and Welfare; Department of Agriculture; Department of Housing and Urban Development; and from other agencies depending upon the nature of specific projects. For example, public and private non-profit agencies and organizations are eligible for funding by the Department of Health, Education, and Welfare for special programs for the disadvantaged, basic and applied research and development to improve educational teaching and learning, community education programs on environmental education, drug abuse education, and similar programs. Funds for training programs or for preparing job opportunity spots might be solicited from the Department of Labor. Additionally, grants could be sought from the Ford, Sloan or Markle Foundations and other lesser foundations, industry, and educational institutions.

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[6]Sloan Commission on Cable Communications On the Cable: The Television of Abundance (New York: McGraw-Hill Publishing Co., 1971), p. 142.

It would be entirely appropriate for the Appalachian Regional Commission to help support cable promotion, experimentation, and demonstration for the delivery of information and services related to health care, child development, vocational education, community development; the entire gamut of the Appalachian development program.

The findings of this study indicate the need for the formation of a multi-state, multi-purpose development center to oversee research and demonstration on the public usages of cable television in Appalachia. Furthermore, it appears that such a center will want to organize in a manner which will allow it great flexibility in activities in achieving the goals and providing the services set forth below:

-- To serve as a regional clearinghouse for information concerning the uses, prospects, regulations, and promotion of cable;

-- To act as a focal point for leadership for community groups, educational institutions, local governments and other cable systems interested in local program origination, for communities in franchise negotiations, and for those localities in need of technical assistance.

-- To identify, organize, and fund, in cooperation with local development districts, demonstration projects in various innovative usages of cable;

-- To provide training in video for citizen groups interested in beginning community programming via cable;

-- To aid in community construction and operation of cooperative cable systems in those communities that are too small to support a private cable company;
-- To work with local cable operators and multiple system operators;
-- To advise local and state governments on the developments and uses of cable;
-- To provide a regional resource for production of programs aimed specifically at the Appalachian audience and for exclusive distribution via cable.

A group which will be involved in such a wide range of activities and which might benefit from financing from a wide range of sources would benefit from incorporation as a non-profit organization rather than starting as an unincorporated association. Incorporation will give the group the traditional benefits of a corporation versus an unincorporated entity. It would have perpetual life, central management with clearly delineated responsibilities, a corporate vehicle for obtaining tax-exempt status, lessened problems of transferring interests, and liability in contractual suits limited to the assets of the corporation.

It is also possible that such a research and demonstration center as here recommended could be attached as a semi-autonomous unit to an existing institution such as a university or educational television station.

The heart of any such cable television development center, no matter what its particular structure would be its

locally run demonstration projects. It will be at that level that programming will be produced and put out on the cable.

If interest was confined solely to product, there are a number of ways local cable programming may be produced, i.e., roving mobile units, outside contracts, central production centers. My interests, however, are developmental and therefore demand that equal emphasis be given to the process of community production, for the process itself is a major input to overall community development.

Although a variety of organizational structures might be workable on the local level, as indicated earlier, the formation of broad-based citizens associations or citizens communications councils may be more effective as the local entity for production. Although development districts, ETV stations, and educational institutions might well be able to handle local production themselves, none of them reflect the entire community. It is foreseeable, however that these agencies can make significant contributions to the programming of the local channel. The more diverse the citizens council, the better. For it would be the purpose to include a wide spectrum of people into the operation of the local community channel and therefore truly reflect, as best as possible, all aspects of local culture.

"By the people and for the people," seems an appropriate phrase to describe this scenario for community television. It is through cable's mechanism for abundance,

that television at long last promises to be democratized. Such democratization of the medium is, however, only a promise. Cable technology, like many other technologies before it, offers only possibilities. It is ultimately up to society to choose which possibilities it wants and which it rejects. It remains to be seen if society will base its choices upon the strangely modern wisdom of Lincoln's famous phrase.

APPENDIX A

DEVELOPMENT DISTRICTS UNDER SPECIAL STUDY

DEVELOPMENT DISTRICTS UNDER SPECIAL STUDY

	STATE	NAME	LOCATION	COUNTIES INCLUDED
1.	Kentucky	Gateway Area Development District	Owingsville	Bath, Menifee, Montgomery, Morgan, Rowan
2.	Kentucky	Kentucky River Area Development District	Hazard	Wolfe, Lee, Owsley, Leslie, Breathitt, Perry, Knott, Letcher
3.	Tennessee	First Tennessee-Virginia Development District	Johnson City	Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington, TN, Washington, VA
4.	Tennessee	Upper Cumberland Development District	Cookeville	Cannon, Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, White, Warren, Van Buren
5.	Virginia	Cumberland Plateau Planning District	Lebanon	Buchanan, Dickenson, Russell, Tazewell
6.	Virginia	LENOWISCO Planning District Commission	Dryden	Lee, Norton, Wise, Scott

APPENDIX B

CATV SURVEY

CATV SURVEY

Appalachian Sections

of

Kentucky, Tennessee, & Virginia

SYSTEM	TOTAL POPULATION	POTENTIAL SUBSCRIBERS	CURRENT NUMBER OF SUBSCRIBERS	SATURATION PERCENTAGE	CHANNELS
KENTUCKY SYSTEMS					
*Allen	1,500	350	325	(92.9)	4
Barbourville	3,211	1,200	564	(47.0)	12
Beattyville	1,000	200	175	(87.5)	3
Benham	1,900	300	273	(91.0)	5
Berea	4,302	1,000	430	(43.0)	12
Burkesville	1,688	500	448	(89.6)	5
Cumberland	5,000	1,500	1,160	(77.3)	5
Elkhorn	1,085	500	400	(80.0)	5
*Flemingsburg	2,500	800	600	(75.0)	12
Harlan	5,700	3,000	2,200	(73.3)	12
Irvine	3,000	1,000	600	(60.0)	5
*Liberty	2,200	850	720	(84.7)	8
London	4,400	1,400	1,038	(74.1)	12
Lynch	3,810	450	450	(100%)	5
Manchester	1,868	500	500	(100%)	7
Martin	3,000	350	330	(94.2)	6
Maysville	8,451	2,300	1,806	(78.5)	12
McKee	750	225	225	(100%)	5
*Middlesboro	15,000	3,900	1,450	(36.7)	12
Monticello	4,000	1,200	500	(41.7)	12
Morehead	4,390	2,000	1,300	(65.0)	12
*Mount Vernon	1,100	450	350	(77.0)	5
*Paintsville	5,800	2,000	1,400	(70.0)	5
Pineville	3,200	600	438	(73.0)	5
Prestonsburg	3,133	1,000	895	(89.5)	5
*Richmond	16,600	3,500	1,103	(31.5)	12

*Broadcasting Publications, Broadcasting Sourcebook CATV, 1971. Washington, D.C.: Broadcasting Publications, 1971.

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SYSTEM	TOTAL POPULATION	POTENTIAL SUBSCRIBERS	CURRENT NUMBER OF SUBSCRIBERS	SATURATION PERCENTAGE	CHANNELS
Salyersville	1,173	300	200	(66.0)	3
Tomkinsville	2,091	500	125	(25.0)	12
*Williamsburg	3,400	600	499	(83.2)	6
*Winchester	16,900	4,500	2,664	(59.2)	12
Subtotals	132,152	37,025	23,168	62.5%	8
VIRGINIA SYSTEMS					
*Abingdon	4,758	1,500	467	(31.1)	12
Big Stone Gap	4,688	700	600	(85.0)	5
Bluefield-(VA & TN)	30,000	9,000	5,100	(56.7)	12
Bristol (VA & TN)	37,244	4,000	2,165	(54.1)	12
*Buena Vista	8,000	1,800	650	(36.1)	8
*Covington	11,000	6,300	4,200	(66.7)	12
Dante	1,250	450	285	(63.3)	5
*Galax	5,300	1,650	624	(36.8)	12
Harrisonberg	16,000	4,500	3,800	(84.4)	5
Lebanon	2,089	1,500	355	(23.7)	12
Marion	8,500	2,100	1,600	(76.2)	12
Pulaski	10,469	2,950	1,100	(37.2)	12
Richlands	4,963	2,600	1,114	(42.8)	5
*Saltville	2,844	1,086	1,043	(96.0)	12
Stauton	22,232	3,000	1,750	(58.3)	12
Tazewell	3,000	1,000	800	(80.0)	12
Waynesboro	15,694	2,778	2,189	(78.8)	12
Subtotals	188,031	46,914	27,842	59.3%	10
TENNESSEE SYSTEMS					
Elizabethton	10,896	1,500	800	(53.3)	12
*Erwin	5,000	2,000	1,593	(79.6)	12
*Greenville	13,000	4,700	1,679	(35.7)	12
Harriman	5,931	2,600	1,250	(48.0)	12
Johnson City	32,375	5,000	3,300	(66.0)	12
*Kingsport	34,000	29,156	12,679	(43.0)	12
*Lafollette	7,500	1,400	850	(60.7)	7
Morristown	23,000	3,000	1,513	(50.4)	10

SYSTEM	TOTAL POPULATION	POTENTIAL SUBSCRIBERS	CURRENT NUMBER OF SUBSCRIBERS	SATURATION PERCENTAGE	CHANNELS
TENNESSEE SYSTEMS					
*Oak Ridge	33,000	6,000	2,000	(33.3)	10
Rockwood	5,345	1,445	417	(28.9)	12
Rogersville	3,000	500	260	(52.0)	12
*Tullahoma	15,000	1,200	900	(75.0)	12
Subtotals	188,047	58,501	27,241	46.5%	11
TOTALS	508,230	142,440	78,251		
			AVERAGE	54.9%	10

APPENDIX C

DEVELOPMENT DISTRICT FACILITIES SURVEY

DEVELOPMENT DISTRICT FACILITIES SURVEY

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Gateway Development District Kentucky Montgomery County Mt. Sterling	1,273	20	9	Mostly live, some video tape	G.B.C. Camera Ampex one-inch video tape
Rowan County Morehead	2,180	10	2	No, but about to begin	Ampex, one-inch video tape
Kentucky River Development District Kentucky Lee County Beattyville	406	4	none	no	no
Lee County Proctor	185	4	no	no	no
Lee County Booneville	162	4	1 educ. channel	no	no

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Breathitt County Jackson	300	7	no	no	no
Leslie County Hyden	150	7	2	no	no
Perry County Bulan	1,000	21 Push Pull system	7	no	no
Perry County Hazard	2,000	5	no	yes live and tape	Jerrold and RCA
Letcher County Cumberland	1,150	9	3	yes, live	Ampex, one-inch video tape
Letcher County Whitesburg	200+	5	no	no	no
Letcher County Seco	125	5	no	no	no

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Letcher County Neon	255	4	no	yes, live	no
Letcher County Jeremiah	165	3	no	yes, live	no
Letcher County Jenkins	1,300	5	1	live and video	X
Knott County Wayland	350	4	no	no	no
Knott County Wheelwright	950	5	no	no	no
Knott County Hindman	800	5	no	no	no

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
First Tennessee-Virginia District Tennessee Hancock County Sneedville	(Cable out of Morristown - out of the area)				
Hawkins County Bulls Gap (Serves Rogersville	452	12	8	no	equipment for live
Green County Greenville	2,100	11	1	no	no
Sullivan County Kingsport (serves Weber & Gate City, VA)	10,246	12	2	yes film	Telemation Bell & Howell Sony - ½ & 1 inch
Washington County Johnson City (Paul Puckett)	5,770	12	no	no	no
Washington County Johnson City (Washington County Utility District	500	12	1	no	no

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Carter County Elizabethton	5,700	12	no	no	no
Unico County Erwin	1,700	12	1	no	no
Johnson County Mountain City	450	9	3	live and some video	X
Upper Cumberland Development District Tennessee Putnam County Cookeville	available to 4,500; would not give exact	12	2	both live and video in future	X
Warren County McMinnville	No information available.				
White County Sparta	No information available.				

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Overton County Livingston	No information available.				
LENOWISCO Development District Virginia Scott County Bristol	3,372	12	2	yes, and have film chain	no
Wise County Norton	1,400	21	1	no	no
Wise County Appalachia	900	20	13	no	no
Wise County Big Stone Gap	1,300	20	13	no, but planning	no
Wise County Coeburn	500	12	4	no	no

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Wise County St. Paul (serves Castlewood & Dante)	1,000	12	4	yes, live	no
Lee County St. Charles	No information available.				
Lee County Pennington Gap (City Cable)	175	13	6	no	no
Lee County Pennington Gap (Lee TV Cable Co.)	350	12	5	no	no
Lee County Middlesboro	2,100	12	no	yes, live and some video, 16 mm. film chain	Ampex - 1 inch
Cumberland Plateau Russell County Lebanon	600	12	2	yes, live	no

Development District Facilities Survey (cont.)

Development District State County Town	Number of Subscribers	Channel Capacity	Number of Empty Channels	Doing Local Origination Live or Video Tape	Type of Video Tape Equipment
Russell County Honaker	329	12	5	yes, live	no
Dickenson County Clintwood	750	5 - make it 12 soon	4	no	no
Dickenson County Clincho	150	12	6	no	no
Buchanan County Grundy	won't tell	5	no	no	no
Tazewell County Richlands	won't tell	12	2	no	Sony
Tazewell County Tazewell	won't tell	12	3	no	no

APPENDIX D

SAMPLE QUESTIONNAIRE FORM

SAMPLE QUESTIONNAIRE FORM

CATV - COMMUNITY DEVELOPMENT QUESTIONNAIRE

Name of Respondent _____

Business Address _____

_____

Business Phone _____

Name of Organization _____

Title in Organization _____

A. COMMUNITY NEEDS

(1) What is the most pressing problem facing your community?

_____

_____

_____

(2) What other significant problems are facing your community?

_____

_____

_____

(3) What do you consider are Eastern Kentucky's most pressing problems?

_____

_____

_____

(4) Do you feel that the problems of Eastern Kentucky are shared by the rest of the Appalachian Region? Please explain--

_____

_____

_____

B. PROGRAMMING NEEDS

(5) Do you think the media (TV, Radio, Newspapers) in your community are doing an adequate job of informing the public about local issues and problems?

_____

(6) Do you think that local program origination by cable TV systems could aid in the solution of local problems?

_____

(7) (If you answered YES to question six) How can cable TV help in dealing with these local problems?

_____

_____

_____

(8) Listed below are several types of programs that a local CATV system might produce. Rank them by placing 1, 2, 3, 4, or 5 next to the letters in the order which you feel are most important. For example, if you think A is most important put a 1 beside it, if you choose D as the second choice put a 2 beside it and so on.

_____ A. Local News
_____ B. Coverage of governmental meetings (city council, etc.)
_____ C. Local Sports (high school, little league)
_____ D. Instructional Programs ("How To", Adult Education)
_____ E. Public Affairs (election returns, special issues, telethons)

(9) Name several other types of cable TV programs that you think would be helpful in solving the problems of your community.

_____

_____

_____

C. DEVELOPMENT DISTRICTS (To be answered by Development District personnel)

(10) What problems do you foresee in developing TV programs in conjunction with CATV systems within your District?

_____

_____

_____

(11) Would short seminars for your staff production techniques for cable TV be helpful in overcoming the problems mentioned above?

_____

_____

_____

(12) Would on site technical assistance in programming, utilization and production be helpful in stimulating your Development District to begin CATV programming?

_____

D. CATV (To be answered by CATV owners/operators/staff)

(13) Are you now originating local community service programming?

_____

(14) Do you plan to begin local program origination in the near future?

_____

(15) Would your system look favorably upon working with Development Districts to produce CATV programming designed to meet the developmental and educational needs of your area?

_____

_____

_____

(16) Besides Development Districts, which community groups in your locale do you think would be interested in using your facilities for program origination?

_____

_____

_____

(17) Would you provide technical assistance to community groups for program origination?

_____

_____

(18) Would you be interested in participating in a regional cable television network?

_____

_____

_____

(19) Would you be interested in programming by an outside community service agency, in exchange for free cable time?

_____ _____

_____

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BIOGRAPHICAL SKETCH

Lamar Vincent Marchese was born December 11, 1943, at Tampa, Florida. He attended school in Tampa and was graduated from Hillsborough High School in June, 1961. He entered the University of South Florida immediately upon graduation and received the degree of Bachelor of Arts, with an interdisciplinary major in Social Science, in December, 1964. Upon graduation he joined VISTA (Volunteers in Service to America) and was stationed at the Catoctin Job Corps Center, near Camp David, Maryland for one year. In January, 1966, he joined the staff of the Harper Ferry Job Corps Center, Harpers Ferry, West Virginia as an instructor of reading. In 1967, he returned to Florida to teach Seminole Indian children in a tribal Headstart program. He entered the Graduate School of the University of Florida in September, 1967. He worked as a graduate assistant in the College of Journalism and Communications for Radio Center, the student operated portion of programming on WRUF-FM for two years. In the summer of 1968 he accepted an internship with the Voice of America, where he was assigned to the African Division. He took the position of Media Specialist with the Appalachian Adult Education Center, Morehead State University, Morehead, Kentucky in October, 1969. His work there led to his interest in usage of media for social change and the completion of his degree of Master of Arts.

Lamar Vincent Marchese is married to the former Patricia Mae Davis, and is the father of one son. He is a member of Alpha Epsilon Rho, Publicable, and the National Association of Educational Broadcasters.

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